TWENTY-SECOND ANNUAL REPORT

UNIVERSITY OF MARYLAND

EXTENSION SERVICE

FOR THE YEAR 1936

Cooperative Extension Work In Agriculture and Home Economics,
Extension Service, University of Maryland, and the
United States Department of Agriculture
Cooperating.

T. B. SYMONS, Director

Distributed in furtherance of acts of Congress of
May 8 and June 30, 1914.

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C. F. WINSLOW	Extension Forester

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(*Continued on Third Page Cover*)

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UNIVERSITY OF MARYLAND

EXTENSION SERVICE

FOR THE

YEAR 1936

LETTERS OF TRANSMITTAL

DR. H. C. BYRD,

President, University of Maryland:

I have the honor to present herewith the Twenty-Second Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1936, together with a financial report for the fiscal year ending June 30, 1936.

Respectfully submitted,

THOMAS B. SYMONS,
Director, Extension Service.

January 1, 1937.

TO HIS EXCELLENCY HARRY W. NICE,

Governor of Maryland:

In accordance with the requirements of the Act of Congress approved May 8, 1914, and known as the Smith-Lever Act, I have the honor to transmit herewith the Twenty-Second Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1936, together with financial report for the fiscal year ending June 30, 1936.

Respectfully submitted,

H. C. BYRD,
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January 4, 1937.

TWENTY-SECOND ANNUAL REPORT

OF THE

UNIVERSITY OF MARYLAND

EXTENSION SERVICE

FOR THE YEAR 1936

By THOMAS B. SYMONS, Director.

INTRODUCTION

THE PROGRAM of activities carried out by the University of Maryland Extension Service has continued to expand, in response to demands by the people of the State and to growing appreciation of the services and assistance which are available. In this report it is possible to refer only briefly to some of the more outstanding developments and those which are rather broad in their scope or significance, although much of the value of the service is derived from numerous activities that together make up a well-balanced program adapted to the highly diversified agriculture of the State.

The agricultural industry in Maryland during 1936 has in most respects experienced a rather favorable year. Farmers of the State were not subjected to the trying conditions of severe drought or floods, nor to extensive damage by storms, except in local areas. Likewise, no unusually severe outbreaks occurred of insect pests, plant or animal diseases. Growing conditions for most crops were up to or above the average and resulted in average production, or better than average. A more detailed statement of the yields, total production and values of crops is given later, in which it is shown that the farm value of agricultural production is approximately $9,000,000 greater than in 1935, exclusive of the amounts received for cooperating in the soil conservation and crop adjustment programs. While an estimate of the total net farm income is not yet available, and it is known that expenses of operation have increased somewhat, it appears evident that Maryland farmers fared better in 1936 than for a number of years. Farm prices for

most commodities registered an increase, which was sufficient in many cases to more than offset any decrease in production.

Program Building

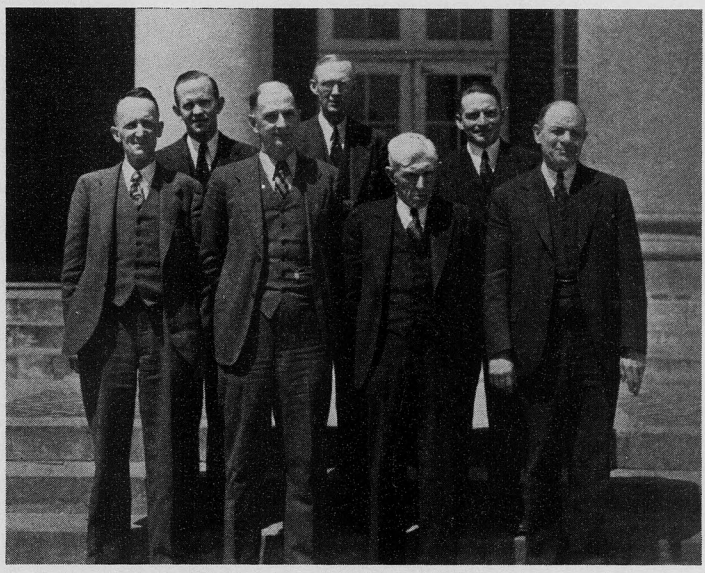
WHILE it has been the policy in previous years to give great attention to development of programs in accordance with the needs and desires of the people, and to work out such programs in cooperation with farm and rural leaders, much more intensive effort was exerted along that line during 1936. A five-year program was developed in 1931, and it was decided in 1936 to enlist the interest and aid of all agencies associated with agriculture and rural life in developing the soundest program possible for the next five or more years. To this end, the Extension Service assembled and supplied to each county adequate data and information regarding conditions, trends, etc., to serve as a basis for consideration and discussion in planning the best program for the next few years. Based upon the programs thus developed in the several counties, upon the recommendations and advice of specialists in the various fields, and in cooperation with leaders of all farm and rural organizations, a program was developed in which definite goals are set forth for each of the major phases of agriculture and rural life. This program, representing the combined judgment of farm and home leaders throughout the State, and of specialists in the respective fields, will serve as a guide in planning more detailed programs during the next few years.

It is not possible to evaluate this effort. Certainly, it can be said that it resulted in a very large number of people thinking further ahead in planning for their farms and homes, and, indeed, it instilled the idea of planning in the minds of numerous people who had done very little in that line except for the immediate future. This project was developed in cooperation with the county planning project and was undoubtedly one of the most far-reaching and valuable carried on by the Extension Service.

Agricultural Conservation

LAUNCHING of the Soil Conservation and Domestic Allotment program early in the year placed upon the Extension Service a double responsibility. Crop adjustment programs for wheat, corn-hogs and tobacco were in progress and it was necessary also to acquaint farmers generally with the provisions of the new Act, its purposes, methods of procedure and other facts

necessary to participate in the new program. An intensive statewide educational campaign was conducted and every means was employed to disseminate the information as rapidly and thorough-



Members of the Maryland Agricultural Conservation Committee, which was appointed to assist in administering the Soil Conservation program. They are: Front row, left to right, Walter E. Burall, New Market; Harry H. Nuttle, chairman, Denton; J. W. Jones, Olney; Dr. T. B. Symons, Director of the Extension Service. Back row, Paul E. Nystrom, executive secretary; T. Roy Brookes, Bel Air; Samuel C. Linton, Riverside.

ly as possible in order that farmers might plan intelligently before the planting season was too far advanced. The effectiveness of this effort is reflected in the results, which show approximately 14,-500 farmers signed work sheets, covering more than 60 per cent of the crop land of the State, and participated in the conservation program. Carrying out the various steps in this new program, advising committeemen and farmers on innumerable points arising in connection with it, helping them to plan the program for the the coming year, together with completing the crop adjustment programs of the previous year, have been major activities, particularly of the agents in the field. It is estimated that the amount received in benefits by the farmers who cooperated in the conservation program will be in the neighborhood of $1,500,000.

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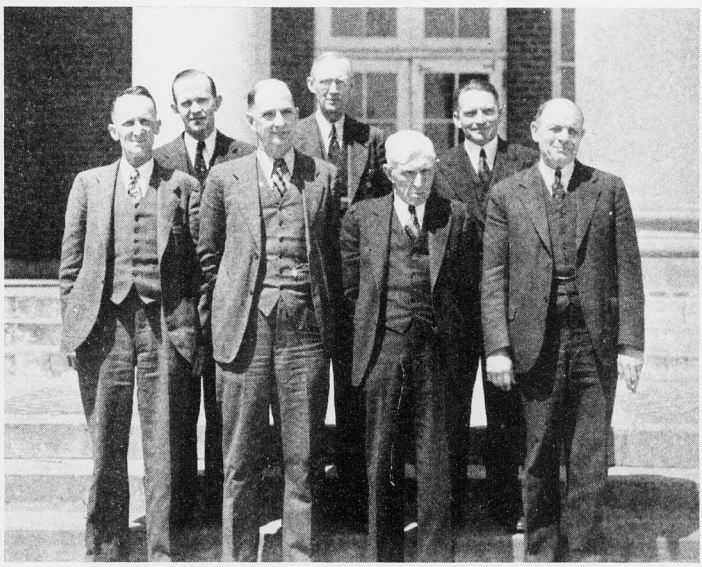

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Rural Rehabilitation

IT HAS BEEN the policy in Maryland to conduct rural rehabilitation in close cooperation with extension work. In line with this policy the County Agent Leader and Leader of Home Demonstration Work have served respectively as State Director and Assistant Director of Rural Rehabilitation. Likewise, the county agents and home demonstration agents in all counties have been active in contacting rehabilitation clients, assisting in working out farm and home management plans, and in every way carrying out the rehabilitation program in Maryland. It is believed that the close cooperation between the two agencies working with rural people has resulted in giving the best of service to rehabilitation clients with maximum efficiency and lack of duplication of effort and expense.

Rural Electrification

A MORE EXTENSIVE statement of the results achieved in the way of extending the benefits of electric power to farms and homes in Maryland is given in the report on agricultural engineering. The Extension Service cooperated in promoting the program of the Rural Electrification Administration in this State, in which the farm organizations and public utility companies cooperated also. As a result of this cooperation, rates for electric current were materially reduced, rural lines were extended many miles, and thousands of rural customers were connected. Through rural women's schools approximately 4,000 families were given information pertaining to use of electric equipment, proper lighting, etc., and 4-H clubs completed a project in electricity in three counties.

Drainage

A DRAINAGE demonstration conducted on the Eastern Shore attracted a great deal of attention from all interests in that area and is certain to be of great value, both from an economic and demonstration standpoint. The work was carried on in cooperation with CCC drainage camps of the Bureau of Agricultural Engineering of the U. S. Department of Agriculture and was supervised by the Extension Specialist in Agricultural Engineering. Its purpose was to maintain and improve organized tax ditches, rather than add to the cultivated area in that section.

Bang's Disease Control

SPECIALISTS in dairy and animal husbandry, and especially the county agents in the respective counties, cooperated with Federal and State agencies in a campaign to control Bang's disease of cattle. The educational work relative to this campaign, the plans for testing and procedure in order to obtain tests, were carried on largely by Extension forces. Approximately 43,000 head of cattle were tested for the disease during the year.

Cooperation With Other Federal Agencies

EXTENSION WORKERS, both in the counties and at headquarters, assisted Federal agencies operating in the State, whenever their particular training, position, or understanding of conditions enabled them to render valuable service. Specialists and agents cooperated closely with relief workers in many ways, including assistance in making out economical food and clothing budgets, planning home gardens and providing seeds for them, making plans of home management, and the like. The Soil Conservation Service, Land Utilization Service, and Federal Farm Credit Administration were other agencies with which the Extension Service cooperated actively in carrying out their respective programs in Maryland.

Marketing

PERHAPS the most outstanding development in the field of marketing as it affects those engaged in agriculture was the action taken by the Maryland Agricultural Corporation early in the year, in which it joined its force with the Southern States Cooperative. For a number of years, the Corporation has been a factor in the purchase by farmers of a number of staples, such as feeds, fertilizers, seeds, binder twine, etc. By joining forces with the large Southern States Cooperative in this field it is the hope that cooperative purchasing of supplies by farmers in Maryland will be developed on a much larger scale and with greater efficiency than ever before experienced.

There have not been the acute problems in connection with marketing any of the principal farm products that have arisen in each year for a number of years. The outstanding progress of the year was in the field of improved quality through more general use of recognized standards and grades, and the use of such standards and grades as a basis for purchase and sale. Work in

this field included fruits, vegetables, canning crops, poultry products, eggs, and maple syrup. Certification of seeds and the promotion of sale and use of certified seed as a means of crop improvement made distinct progress.

Largely at the instigation of the Extension Service, and with its cooperation, a State committee made a study of the use of Maryland tobacco by visiting a number of cigarette manufacturing plants. As a result of this study, a number of specific recommendations were made with a view to improvement in marketing the tobacco crop. The information obtained is of great value in planning extension programs in tobacco marketing.

The established cooperatives of the State—The Maryland Cooperative Milk Producers, Inter-State Milk Producers Association, Maryland-Virginia Milk Producers' Association, Hillsboro-Queen Anne Cooperative, and Tobacco Growers' Association—continued to render valuable service to their members.

Livestock Work Expanded

IN RESPONSE to greatly increased interest in various phases of livestock production in the State, steps were taken to provide more adequate service to those engaged in that important line of farming. The personnel was increased, both for work with adults and for greater attention to developing livestock clubs among members of 4-H clubs.

Poultry

POULTRYMEN of the State have been very active in behalf of this rapidly developing industry. In an effort to keep pace with the increasing demands for service by the poultry interests, some additions were made to the personnel. Work on diseases of poultry showed a large increase. Testing for Pullorum disease has grown from about 50,000 birds in 1934 to approximately 200,000 birds in 1936.

Progress in Women's Work

ENROLLMENT in Home Demonstration work, both adult and junior, was larger than in any previous year. Addition of a Home Management Specialist to the force made it possible to expand the work in that field. Willingness on the part of the rural women themselves to attend training schools and give

demonstrations at their club meetings made it possible to further extend the work in various lines.

One of the outstanding pieces of work was the planning of a long-time program for "Better Family Living," based on a survey of the needs in clothing, foods and nutrition, and home furnishing, the survey being made by a committee in each county.

Women who attend the Rural Women's Short Course four years are presented certificates by Dr. H. C. Byrd, President of the University of Maryland.

The Rural Women's Short Course at the University of Maryland continued to be a notable event in the field of adult education and the training of community leaders. Expansion of the work into activities other than those directly associated with homemaking, such as music, reading, public speaking, and improvement of home grounds, was an important development.

Cooperating Agencies

THE EXTENSION SERVICE has enjoyed the whole-hearted cooperation of all rural organizations of the State and in the respective counties. Likewise there was a spirit of harmony among

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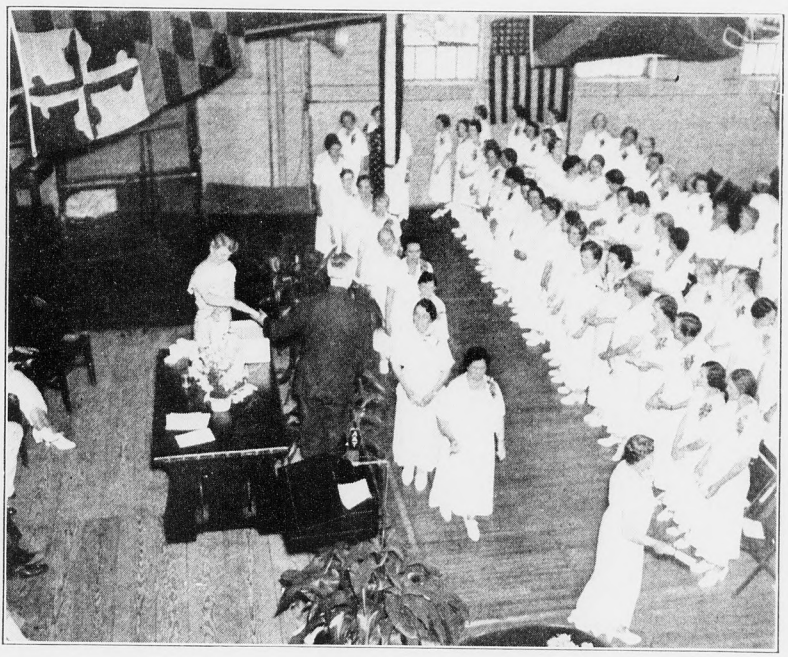

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Cooperating Agencies

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the several organizations working in behalf of the farming industry—the Farm Bureau, Grange, breed associations, commodity marketing organizations, women's organizations, and those active in carrying out the newer programs, such as crop adjustment, soil conservation, rural rehabilitation, and land utilization. One of the principal factors in the progress which has been made is undoubtedly the harmony with which all agencies have worked together.

It has always been the policy of the Extension Service in Maryland to cooperate to the extent of its facilities with any and all agencies putting forth constructive efforts in behalf of the agricultural industry. In reporting the many activities of the Service, it is the aim to give due credit to all agencies which have cooperated during the year. Should such credit be omitted in any case, I hereby record the sincere appreciation of the Extension Service for all assistance received in carrying on its many lines of work.

Crop Yields and Values

TOTAL VALUE of all crops in Maryland in 1936, with duplications eliminated, is estimated at $55,465,000 by the Division of Crop Estimates of the U. S. Department of Agriculture. A similar estimate for 1935 was $46,283,000, and for 1934 was $46,464,000. To the estimated value of farm crops during the year should be added approximately $1,500,000, which was earned in the form of benefit payments by about 14,500 farmers, who cooperated in the soil conservation program. While there was an increase in the total production of a number of important crops, the principal factor in the almost 20 per cent increase in total value for 1936, as compared with 1935, was due to better prices. In the case of some crops even a considerably smaller production resulted in greater value because of the improvement in prices received by farmers.

The corn crop, for example, is valued at more than $3,000,000 more than in 1935. With a reduction of 5,000 acres, the average yield of 36 bushels to the acre gave a production of 18,396,000 bushels. The price was 89 cents, compared with 76 cents the preceding year.

Farmers increased their acreage in wheat to 449,000 acres, which is 21,000 acres more than in 1935. The average yield per acre was 20 bushels, giving a total production of 8,980,000 bushels.

With an average price of $1.01 per bushel, compared with 77 cents in 1935, the total value was $9,070,000, which is an increase of more than $2,000,000.

Acreage of oats was reduced 7,000 acres, and the total production was 157,000 bushels less than in 1935. The total value of the crop was $611,000, compared with $541,000 the year before, due to a price of 54 cents compared with 42 cents.

Barley acreage was increased 3,000 acres, but due to a yield per acre of 25 bushels compared with 34.5 bushels in 1935, the total production was estimated at 1,000,000 bushels. This is 276,000 bushels less than in 1935, but a price of 66 cents a bushel made the total value $660,000, or an increase of $22,000

Growers of potatoes planted 5,000 fewer acres in that crop; an increase of ten bushels to the acre made up for a large percentage of the reduction, so that total production was only 195,000 bushels less than in 1935. The big factor in the situation for potato growers was the fact that the price was $1.10, compared with 53 cents a bushel last year. This resulted in a value for the crop of $3,234,000, compared with $1,662,000 in 1935.

Tobacco acreage is estimated at 37,000 acres, the same as last year. With a yield of 800 pounds per acre, the total production is placed at 29,600,000 pounds. The estimated price is 21 cents a pound, which gives a total value of $6,216,000 for the crop. In as much as the tobacco crop grown in 1936 is not placed on the market until late in 1937, conditions may change the estimated value materially.

Although the commercial apple crop was about 100,000 bushels smaller than in 1935, it brought the growers more than $350,000 greater returns, due to the fact that the price was 97 cents compared with 61 cents the preceding year. The estimated production of commercial apples was 1,188,000 bushels, valued at $1,152,000.

Production of peaches was a little under 1935, but better prices resulted in a higher value. A small increase in the pear crop was more than offset by lower prices. The season was much less favorable for strawberries than in 1935 and even with somewhat better prices the value of the crop was considerably lower.

Growers of canning crops had a more favorable year than in 1935, with the exception of producers of green peas. Tomato growers had the high average yield of 5.4 tons to the acre, which

gave a total production of 297,000 tons. At an average price of $13.10 a ton, the total value was $3,891,000, an increase of more than a million dollars over last year.

There was no material change in the number of horses on farms January 1, 1937, compared with the number one year ago. It was evident, however, that a decrease in horses two years old and over was offset by an increase in colts one to two years old. There was an increase of 10 per cent in the number of hogs, decreases of 2 per cent in sheep and 3 per cent in mules, and no change in the number of all cattle. With the exception of hogs, which showed no change, the value per head of all species of livestock on January 1, 1937, was higher than at the beginning of 1936. The total value of livestock on farms January 1, 1937, was estimated to be $31,184,000, compared with $29,849,000 a year ago.

As has been the custom for a number of years, a record of the estimated acreages, yields and values of the principal crops of Maryland is included in this report. These estimates are furnished by the Bureau of Economics of the U. S. Department of Agriculture, cooperating with the Extension Service. For the sake of comparison, the corresponding figures for two preceding years are given. The estimated numbers of livestock on farms January 1, 1937 are given also.

PRODUCTION AND VALUE OF CROPS

Crop and Year	Acres	Per Acre	Total	Unit	Per Unit	Total	Value Per Acre
Corn							
1936	511,000	36.0	18,396,000	Bus.	.89	$16,372,000	$32.00
1935	516,000	34.0	17,544,000	"	.76	13,333,000	25.84
1934	515,000	33.0	16,995,000	"	.83	14,106,000	24.75
Wheat							
1936	449,000	20.0	8,980,000	"	1.01	9,070,000	20.20
1935	428,000	20.5	8,774,000	"	.77	6,756,000	15.80
1934	387,000	20.5	7,934,000	"	.90	7,141,000	18.45
Oats							
1936	39,000	29.0	1,131,000	"	.54	611,000	15.70
1935	46,000	28.0	1,288,000	"	.42	541,000	11.80
1934	44,000	30.0	1,320,000	"	.51	673,000	15.30
Barley							
1936	40,000	25.0	1,000,000	"	.66	660,000	16.50
1935	37,000	34.5	1,276,000	"	.50	638,000	17.20
1934	22,000	28.5	627,000	"	.57	357,000	16.20
Rye							
1936	15,000	12.5	188,000	"	.91	171,000	11.40
1935	18,000	13.5	243,000	"	.62	151,000	8.40
1934	20,000	15.0	300,000	"	.76	228,000	11.40

PRODUCTION AND VALUE OF CROPS (Continued)

Crop and Year	Acres	Per Acre	Total	Unit	Per Unit	Total	Value Per Acre
Buckwheat							
1936	5,000	18.0	90,000	"	.72	65,000	13.00
1935	6,000	21.0	126,000	"	.55	69,000	11.50
1934	5,000	22.0	110,000	"	.62	68,000	13.60
Potatoes							
1936	28,000	105.0	2,940.000	"	1.10	3,234,000	115.50
1935	33,000	95.0	3,135,000	"	.53	1,662,000	50.40
1934	33,000	99.0	3,267,000	"	.54	1,764,000	53.45
Sweet Potatoes							
1936	8,000	150.0	1,200,000	"	.90	1,080,000	135.00
1935	8,000	128.0	1,024,000	"	.72	737,000	92.00
1934	5,000	150.0	750,000	"	.81	608,000	121.60
Hay (All Tame)							
1936	370,000	.88	327,000	Tons	15.10	4,938,000	13.30
1935	391,000	1.33	520,000	"	10.00	5,200,000	13.30
1934	403,000	1.43	578,000	"	13.00	7,514,000	18.65
Tobacco							
1936	37,000	800.0	29,600,000	Lbs.	.21	6,216,000	168.00
1935	37,000	755.0	27,935,000	"	.20	5,587,000	151.00
1934	32,300	725.0	23,418,000	"	.188	4,403,000	136.31
Apples (Total Crop)							
1936	.....	....	1,810,000	Bus.	.97	1,756,000	.....
1935	.....	....	2,412,000	"	.61	1,471,000	.....
1934	.....	....	1,102,000	"	.90	992,000	.....
Apples (Commercial)							
1936	.....	....	1,188,000	"	.97	1,152,000	.....
1935	.....	....	1,300,000	"	.61	793,000	.....
1934	.....	....	615,000	"	.90	554,000	.....
Peaches							
1936	.....	....	363,000	"	1.45	526,000	.....
1935	.....	....	382,000	"	1.20	458,000	.....
1934	.....	....	82,000	"	1.70	139,000	.....
Pears							
1936	.....	....	110,000	"	.50	55,000	.....
1935	.....	....	106,000	"	.60	64,000	.....
1934	.....	....	94,000	"	.60	56,000	.....
Grapes							
1936	.....	....	690	Tons	50.00	34,000	.....
1935	.....	....	676	"	45.00	30,000	.....
1934	.....	....	614	"	50.00	31,000	.....
Tomatoes (For Mfg.)							
1936	55,000	5.4	297,000	"	13.10	3,891,000	$70.80
1935	64,300	3.5	225,000	"	12.50	2,812,000	43.73
1934	61,200	3.3	202,000	"	15.70	3,171,000	51.81
Sweet Corn (For Mfg.)							
1936	34,000	2.3	78,200	"	11.70	915,000	27.00
1935	33,600	1.8	60,500	"	11.70	708,000	21.07
1934	29,100	1.5	43,600	"	10.00	436,000	15.00

PRODUCTION AND VALUE OF CROPS (Continued)

Crop and Year	Acres	Per Acre	Total	Unit	Per Unit	Total	Value Per Acre
Cantaloupes							
1936	8,100	95.0	770,000	Crts.	.85	654,000	80.60
1935	8,500	115.0	978,000	"	.75	734,000	86.35
1934	7,400	130.0	962,000	"	.90	866,000	117.00
Strawberries							
1936	7,500	45.0	338,000	"	2.50	845,000	112.67
1935	7,300	80.0	584,000	"	2.00	1,168,000	160.00
1934	7,250	90.0	652,000	"	1.25	815,000	112.41
Snap Beans (For Mfg.)							
1936	9,640	1.4	13,500	Tons	42.80	578,000	60.00
1935	9,500	1.4	13,300	"	40.30	536,000	47.00
1934	10,500	1.0	10,500	"	37.50	394,000	37.52
Green Peas (For Mfg.)							
1936	17,800	1,250 Lbs.	11,120	"	50.60	563,000	31.63
1935	18,500	2,350 "	21,740	"	55.00	1,196,000	64.65
1934	13,500	2,200 "	14,850	"	52.40	778,000	57.63

LIVESTOCK ON FARMS

January 1, 1937

	Number	Value Per Head	Total Value
Horses and Colts	81,000	$124.00	$10,026,000
Mules and Mule Colts	28,000	143.00	4,004,000
Dairy Cows and Heifers	188,000	60.00	11,280,000
All other Cattle and Calves	119,000	29.00	3,455,000
Sheep and Lambs	84,000	6.60	552,000
Swine, including pigs	184,000	10.00	1,831,000

ADMINISTRATION

THE ADMINISTRATION of the Service has been carried on as in previous years, with no additions in personnel. Mr. E. I. Oswald, County Agent Leader, and Miss Venia M. Kellar, State Home Demonstration Agent, have served respectively as Rehabilitation Director and Associate in carrying on the Resettlement duties. Mr. Paul Nystrom, Assistant County Agent Leader, has assumed more responsibility for detailed administration of the Soil Conservation and Domestic Allotment Act. All forces have cooperated in carrying out this program in the State.

The relationship of our services to other educational institutions in the State has been quite sympathetic and cooperative. The fact that the leader of the vocational forces is located at our Institution has made it possible to work in close association with these forces in the State. Likewise quite harmonious and cooperative relationships exist between the Service and farm organi-

zations, the State Grange and the Farm Bureau. It has been a pleasure for members of our Service to work with these agencies in their various endeavors throughout the year. The Service likewise received splendid cooperation from the Boards of County Commissioners.

Considerable progress was made in the past year in coordination of research and teaching departments with Extension activities. It will be the policy of the Institution to promote further coordination in order to promote efficiency. The Director has served on the State Soil Erosion Committee and assisted in cooperation with the Soil Conservation Service in the promotion of Soil Erosion District Work in the State. We likewise have an extremely cooperative State Soil Conservation and State Allotment Committee of farmers, who meet regularly at the Institution to discuss plans and progress in the Soil Conservation program. The Service is constantly in need of additional office space and facilities which we hope will be available for this Institution in the near future.

I am indebted to all members of the Service for their loyal support and earnest endeavor to meet the additional duties and demands that have been placed upon the Institution from the Extension viewpoint.

I wish to particularly acknowledge the capable service rendered by Mr. A. H. Snyder, Editor of the Service, in preparation of this report, as well as other material for the Service.

EMPLOYEES AT HEADQUARTERS—1936

THOMAS B. SYMONS	Director
E. I. OSWALD	County Agent Leader.
MISS VENIA M. KELLAR	State Home Demonstration Agent
A. H. SNYDER	Extension Editor
P. E. NYSTROM	Assistant County Agent Leader and Specialist in Farm Management
E. G. JENKINS	State Boys' Club Agent
MISS DOROTHY EMERSON	Girls' Club Agent
MISS FLORENCE H. MASON	District Home Demonstration Agent and Specialist in Home Furnishing
MISS K. G. CONNOLLY	Administrative Assistant
*G. J. ABRAMS	Specialist in Apiculture
W. R. BALLARD	Specialist in Landscape and Vegetable Gardening
H. C. BARKER	Specialist in Dairying
W. C. BEAVEN	Specialist in Marketing
*R. W. CARPENTER	Specialist in Agricultural Engineering
O. R. CARRINGTON	Assistant Extension Editor
J. A. CONOVER	Specialist in Dairying
*E. N. CORY	Specialist in Entomology
*S. H. DEVAULT	Specialist in Agricultural Economics
LAWRENCE E. DOWNEY	Assistant Specialist in Marketing
MYLO S. DOWNEY	Assistant in Club Work
H. A. EDGE	Specialist in Farm Management and Statistics
*CASTILLO GRAHAM	Assistant Specialist in Entomology
*W. E. HARRISON	Assistant Specialist in Marketing
MISS JESSIE D. HINTON	Specialist in Home Management

* Devote part time to Extension work.

EMPLOYEES AT HEADQUARTERS—1936 (Continued)

H. A. HUNTER	Specialist in Canning Crops
*KENNETH C. IKELER	Specialist in Dairy and Animal Husbandry
*R. A. JEHLE	Specialist in Plant Pathology
*MORLEY A. JULL	Specialist in Poultry
A. V. KREWATCH	Specialist in Rural Electrification
G. S. LANGFORD	Specialist in Insect Control
*T. B. MANNY	Specialist in Sociology
*DEVOE MEADE	Specialist in Animal Husbandry
MISS MARGARET MCPHEETERS	Specialist in Nutrition
F. W. OLDENBURG	Specialist in Agronomy
W. B. POSEY	Specialist in Tobacco
*HARLAN RANDALL	Specialist in Music
P. A. RAPER	Specialist in Poultry Marketing
W. H. RICE	Specialist in Poultry
*C. S. RICHARDSON	Specialist in Educational Extension
S. B. SHAW	Specialist in Marketing and Chief of Maryland State Department of Markets
MISS HELEN SHELBY	Specialist in Clothing
M. M. SHOEMAKER	Specialist in Landscape Gardening
*C. E. TEMPLE	Specialist in Plant Pathology
H. J. TWILLEY	Assistant Specialist in Marketing
J. M. VIAL	Specialist in Animal Husbandry
A. F. VIERHELLER	Specialist in Horticulture
*E. A. WALKER	Horticultural Inspector
E. P. WALLS	Specialist in Marketing and Canning Crops
C. F. WINSLOW	Extension Forester

COUNTY AGENTS—1936

County	Name	Headquarters
Allegany	R. F. McHENRY	Cumberland
Anne Arundel	STANLEY E. DAY	Annapolis
Baltimore	H. B. DERRICK	Towson
Calvert	JOHN B. MORSELL	Prince Frederick
Caroline	G. W. CLENDANIEL	Denton
Carroll	L. C. BURNS	Westminster
Cecil	J. Z. MILLER	Elkton
Charles	P. D. BROWN	La Plata
Dorchester	WM. R. McKNIGHT	Cambridge
Frederick	H. R. SHOEMAKER	Frederick
Garrett	J. H. CARTER	Oakland
Harford	H. M. CARROLL	Bel Air
Howard	E. K. RAMSBURG	Ellicott City
Kent	J. D. McVEAN	Chestertown
Montgomery	O. W. ANDERSON	Rockville
Prince George's	P. E. CLARK	Upper Marlboro
Queen Anne's	KENNETH W. BAKER	Centerville
St. Mary's	J. J. JOHNSON	Leonardtown
Somerset	C. Z. KELLER	Princess Anne
Talbot	R. S. BROWN	Easton
Washington	M. D. MOORE	Hagerstown
Wicomico	J. P. BROWN	Salisbury
Worcester	R. T. GRANT	Snow Hill

ASSISTANT COUNTY AGENTS

County	Name	Headquarters
Allegany, Garrett and Washington	H. W. BEGGS	Cumberland
Baltimore	J. WHEELER ENSOR	Towson
Harford	W. G. MYERS	Bel Air
Kent	STANLEY SUTTON	Chestertown
Montgomery	A. A. ADY	Rockville
Carroll, Frederick and Howard	C. H. REMSBERG	Frederick
Caroline, Dorchester, Queen Anne's and Talbot	CHARLES FULLER	Easton

Local Agents—(Negro Work)

Southern Maryland	J. F. ARMSTRONG	Seat Pleasant
Eastern Shore	L. H. MARTIN	Princess Anne

* Devote part time to Extension work.

HOME DEMONSTRATION AGENTS—1936

County	Name	Headquarters
Allegany	MAUDE A. BEAN	Cumberland
Anne Arundel	MRS. GEORGIANA LINTHICUM	Annapolis
Baltimore	ANNA TRENTHAM	Towson
Calvert	ANGELA M. FEISER	Prince Frederick
Caroline	BESSIE M. SPAFFORD	Denton
Carroll	ADELINE M. HOFFMAN	Westminster
Cecil	W. GERTRUDE DENNING	Elkton
Charles	MARY GRAHAM	La Plata
Dorchester	HATTIE E. BROOKS	Cambridge
Frederick	FLORENCE E. WILLIAMS	Frederick
Garrett	MILDRED E. BARTON	Oakland
Harford	CATHERINE MAURICE	Bel Air
Howard	MARTHA E. MANAHAN	Ellicott City
Kent	HELEN N. SCHELLINGER	Chestertown
Montgomery	EDYTHE M. TURNER	Rockville
Prince George's	ETHEL M. REGAN	Hyattsville
Queen Anne's	ISABEL D. BEWICK	Centerville
St. Mary's	ETHEL JOY	Leonardtown
Somerset	HILDA TOPFER	Princess Anne
Talbot	MARGARET SMITH	Easton
Washington	ARDATH E. MARTIN	Hagerstown
Wicomico	GERTRUDE M. COOKINHAM	Salisbury
Worcester	LUCY J. WALTER	Snow Hill

ASSISTANT HOME DEMONSTRATION AGENTS

Allegany	MARGARET A. LOAR	Cumberland
Baltimore and Harford	ELIZABETH R. JOHNSON	Towson
Carroll, Frederick and Montgomery	JUDITH AULT	Frederick

Local Home Demonstration Agents—(Negro Work)

Charles, St. Mary's, Prince George's and Montgomery	MRS. ARMINTA J. DIXON	Washington, D. C.
Somerset	MRS. JUSTINE N. CLARK	Princess Anne

Changes in Personnel

Mr. Walter B. Posey was reappointed Tobacco Specialist January 1, 1936.

Mr. Mylo S. Downey was reappointed Assistant in Club Work, January 1, 1936.

Mr. Lawrence E. Downey was appointed Assistant Marketing Specialist, January 1, 1936.

Miss Madeline L. Stevens was appointed Temporary Recreation Specialist, February 16, 1936. Her appointment terminated April 30, 1936.

Miss Jessie D. Hinton was appointed Home Management Specialist, September 1, 1936.

Mr. Kenneth C. Ikeler was appointed part-time Dairy and Animal Industry Specialist, August 1, 1936.

Dr. Morley A. Jull was appointed part-time Poultry Specialist July 1, 1936.

Mr. Walter W. Simonds resigned as Temporary Extension Forester, July 15, 1936.

Mr. Callender F. Winslow was appointed Temporary Extension Forester, September 1, 1936.

Mr. A. E. Mercker was granted leave of absence as Potato Specialist, December, 1, 1935.

Mr. Harry W. Beggs was appointed Assistant County Agent in Allegany, Garrett and Washington counties, December 1, 1935.

Mr. William H. Carroll resigned as Assistant County Agent in Baltimore county, January 31, 1936.

Mr. J. Wheeler Ensor was appointed Assistant County Agent in Baltimore county, March 1, 1936.

Mr. Charles H. Remsberg was appointed Assistant County Agent in Carroll, Frederick and Howard counties, June 1, 1936.

Mr. Charles Fuller was appointed Temporary Assistant County Agent in Caroline, Talbot, Queen Anne's and Dorchester counties, July 8, 1936.

Miss Angela M. Feiser was appointed County Home Demonstration Agent in Calvert county, January 1, 1936.

Miss Adeline M. Hoffman was appointed County Home Demonstration Agent in Carroll county, February 1, 1936.

Miss Helen E. Pearson resigned as County Home Demonstration Agent in Frederick county, January 10, 1936.

Miss Florence E. Williams was appointed County Home Demonstration Agent in Frederick county, January 10, 1936.

Miss Elizabeth R. Johnson was appointed Assistant County Home Demonstration Agent in Baltimore and Harford counties, February 16, 1936.

Miss Judith Ault was appointed Assistant County Home Demonstration Agent in Carroll, Frederick and Montgomery counties, April 1, 1936.

Miss M. K. Burtis resigned as County Home Demonstration Agent in Garrett county, July 15, 1936.

Miss Mildred E. Barton was appointed County Demonstration Agent in Garrett county, July 1, 1936.

Mrs. Jennie L. Beal was appointed Colored Assistant County Home Demonstration Agent in St. Mary's county, November 1, 1936.

Sources of Extension Revenue

DURING the fiscal year ending June 30, 1936, there were available for Extension Work the following funds: Federal Smith-Lever, $60,023.83; Federal Smith-Lever Supplementary, $19,202.09; Bankhead-Jones, $74,463.43; Capper-Ketcham, $26,076.61; Additional Federal Cooperative Funds, $15,000; State Smith-Lever, $21,800; County Demonstration Funds, $29,005.19; State Funds for General Extension, $9,625.65; State Horticultural Fund, $6,584.08; Marketing Extension Fund, $7,369.22; Canning Extension Fund, $5,176.06; Poultry Extension Fund, $1,149.67; Dairy Extension Fund, $1,552.65; Tobacco Fund, $626.73; Beekeeping Fund, $760.90; Special Dairy Fund, $2,722.04; Cantaloupe Fund, $831.94; Miscellaneous Funds, including Advanced Registry, State Department of Forestry, Marketing Inspection Funds, etc., $35,841.04; and $61,623 contributed by the various counties; or a total of $379,434.13. In addition, $10,618.71 was used for Japanese Beetle and Insect Control Work, and $11,809.60 was disbursed by the U. S. Department of Agriculture; making a grand total of $401,862.44.

During the present fiscal year ending June 30, 1937, there are available, Federal Smith-Lever, $60,023.83; Federal Smith-Lever Supplementary, $14,401.57; Bankhead-Jones, $82,221.75; Capper-Ketcham, $26,076.61; Additional Federal Cooperative Funds, $12,550; State Smith-Lever, $23,152; County Demonstration Fund, $32,343; State Funds for General Extension, $8,209; State

Horticultural Fund, $7,689; Marketing Extension Fund, $7,370; Canning Extension Fund, $5,278; Poultry Extension Fund, $2,102; Dairy Extension Fund, $1,517; Tobacco Fund, $1,170; Beekeeping Fund, $723; Special Dairy Fund, $2,576; Cantaloupe Fund, $1,500; Miscellaneous Funds (estimated), including Advanced Registry, State Department of Forestry Funds, Marketing Inspection Funds, etc., $30,000; and $63,991 contributed by the various counties; or a total of $382,893.76. In addition, there are available $14,579 for Japanese Beetle and Insect Control work, and $14,692.18 disbursed by the U. S. Department of Agriculture, making a grand total of $412,164.94.

Equipment

THE PRINCIPAL addition to equipment was in the form of filing cases, both in offices at headquarters and in the counties, for the purpose of taking care of the records in connection with AAA and other new programs of work. The agents in two counties were provided more adequate office space than they had in previous years. There was the usual necessity for replacing regular office equipment, such as typewriters, mimeographs, etc., but this expenditure was kept to a minimum consistent with efficient work.

Records of Work

RECORDS REQUIRED in connection with the AAA program, and some of the other new programs have multiplied the work of that character. This is true with respect to the offices at headquarters, and especially the offices of agents in the counties. Larger forces of clerical workers are essential in the offices than were required to adequately meet all needs prior to launching these programs. While additional help was required, the records were kept in good condition.

There has been a much more complex and difficult problem in handling the financial records, because of the various funds involved. This work was handled competently by Miss K. G. Connolly, Administrative Assistant, and her associates.

The number of first-class letters mailed from headquarters during the year was 62,131, and the total pieces of mail numbered 153,751. In all, 128,528 first-class letters were sent by the Service throughout the State.

PUBLICATIONS

WORK IN THIS FIELD continued to expand and is integrated with practically all phases of the Extension program. It has included many activities and cooperated with a number of agencies carrying out programs of work in the State, in addition to handling the news and various types of publications directly associated with extension work. The degree of success achieved in all of the new programs has depended in large measure upon getting information regarding them to as large a percentage of the people as possible throughout the State. Carefully prepared material for publication, either by the Service or in the public press, was an important factor in all of these programs.

News Service—It is not possible to estimate the contribution made by the daily and weekly papers through the space they have given to news and information regarding activities, events and developments affecting the welfare of those engaged in the agricultural industry. Their cooperation has been generous, both in news of state-wide import and news of special interest in the respective counties. For a number of years the Extension Service has maintained a press service for the purpose of supplying the daily and weekly press with timely news releases. The number sent to all weekly papers in the State varied from week to week, according to the importance of news available, the total number of news stories being approximately 250, exclusive of almost an equal number of short items which were used quite widely as fillers.

Daily papers and press services were served by special releases, in most cases sent by wire. Probably the most outstanding development in the work of the information service during the year was the large amount of space devoted to extension activities and affairs pertaining to agriculture by the daily press, and the prominent display given to news of that character.

In addition to the regular service maintained for newspapers, a number of special articles were prepared for farm papers and other publications of special type.

Excellent cooperation in virtually all counties by the publishers and editors of local papers with the representatives of the Extension Service in the respective counties has made the local papers an extremely important factor in carrying on the work.

Extension Service Publications—Regular publications, such as popular bulletins, circulars, the *Extension Service News*, record

books for use in connection with certain projects, and information cards, were issued in about the same volume as during recent years. The most notable change was in the line of improved presentation and better adaptation of the publications to their specific purposes. It is certain that their effectiveness was greatly increased. An effort has been made for a number of years to adapt each publication to a definite purpose and this has resulted in a decided increase in types and styles of publications, with some decrease in the more or less standard types. The variety of publications issued the past year was greater than in any previous year.

Visual Aids—Practically all lines of extension activity call for constant production of illustrative materials in the form of charts, graphs, line drawings for illustrations, photographs, and materials for exhibits. A capable artist on the regular staff has provided well for the needs of the Service in the way of charts, graphs and drawings, but there is great need for more adequate photographic facilities and for taking care of the many requests for educational exhibits. Other forms of visual aids, such as film strips, lantern slides, and moving pictures were used extensively. Even greater use of these types of material could be made effectively, if a supply of new and up-to-date material were produced at all times.

Radio—The Service continued a weekly period of broadcast with the fine cooperation of Station WBAL in Baltimore. This consisted of a 15-minute period of broadcast once each week, arranged and sponsored by the Extension Service. Members of the faculty of the University and staff of the Experiment Station participated. Members of the Service participated also in a number of special programs broadcast from stations in Maryland and Washington. The "Farm Flash" programs of the U. S. Department of Agriculture, with such localization as appeared desirable, were sent daily to radio stations in Baltimore, Cumberland, Hagerstown, and Frederick.

News Writing Schools—There was increased demand for assistance and training in handling the news of Extension Service activities and events in the counties, particularly by the publicity chairmen of homemakers' clubs. Brief instruction in news writing was given in four of the counties, together with advice as to methods whereby suitable publicity could be given to the work in the local communities. This is a big field in which it is hoped that greater effort can be made than was possible in recent years.

Publications Issued—During the period from January 1, 1936, to January 1, 1937, the following publications were issued: Bulletin 59 (reprint) "Pickles and Relishes," 20 pages, 3,000 copies; Bulletin 60 (revised) "Jellies, Jams and Preserves," 32 pages, 3,000; Bulletin 75, "Maryland Spray Calendar for Apples and Peaches," 20 pages, 3,000; Bulletin 76, "Electric Equipment in the Home," 24 pages, 5,000; Bulletin 77, "First Year Music Appreciation for Homemakers' Clubs," 32 pages, 10,000; Circular 61 (revised) "Brooding and Rearing Chicks," 12 pages, 3,000; Circular 110, (revised) "Bang's Disease," 6 pages, 5,000; Circular 112, (revised) "Maryland Poultry Improvement Plan," 12 pages, 3,000; Circular 113, "Report of Maryland Poultry Standardization and Disease Control and Eradication Work," 12 pages, 2,000; Twenty-first Annual Report, 82 pages, 2,000; Pamphlet, "Spraying for the Pea Aphid," 4 pages, 500; Pamphlet, Dairy and Animal Husbandry," 20 pages, 1,000; "Vegetable Garden Calendar," 1 page, 4,000; *Extension Service News*, 4 pages, 2,500 copies each month.

COUNTY DEMONSTRATION WORK

WITH a county agent and home demonstration agent working in each of the 23 counties of the State, and seven assistant county agents and three assistant home demonstration agents working in 14 counties devoting most of their time to junior activities, Maryland had more nearly a completely planned county demonstration program than ever before. In addition to the agents mentioned, four local Negro agents—two men agents and two women agents—conducted work with the colored people of the southern Eastern Shore and the Southern Maryland counties, where the colored population is most concentrated.

Changes in Character of Work—While county demonstration work has changed constantly during the last decade, the last year has brought greater change than in corresponding periods of the past. County agents, their assistants, and the county agent supervisors have changed from positions of almost strictly educators, dealing with the education of farm people, to positions requiring a large element of administration. On their shoulders has rested in large degree the responsibility of not only educating farm people regarding the many aspects of new programs, but taking a prominent part in administering programs which are influencing the lives of rural people.

In some counties it is fair to state that the county agent devoted 50% of his time to activities in which his role was principally that of an administrator, in helping to solve the various problems which confront the people of his county. It is not only necessary for the county agent and the supervisors to know the agriculture of the counties in which they are working, but they must be able to direct all work through the farmers and their families, as well as through local leaders. They must know how the broader programs, such as Agricultural Conservation, Rural Rehabilitation, Soil Conservation and Erosion Prevention, Land Utilization, Farm Credit, and other recovery programs, are operating and how they best apply to their particular locality and conditions, in order to effectively assist their people. These programs must be administered, and the county agent has been called upon to assume a large measure of responsibility in their administration.

In some counties, where a wide diversification of work exists, the county agent finds himself administering an office force of eight to ten assistants in clerical work. He can no longer be an itinerant visitor and teacher, going from farm to farm, but must delegate much responsibility of that nature to local leaders and those qualified for such work. His association with the specialists has also been changed considerably. The specialist no longer presents his project as affecting an individual crop or problem, but plans his work in cooperation with other specialists to meet the problems that confront the county agents in handling definite situations. Meetings are no longer held in the county merely for the purpose of bringing people together to present some minor phases of the Extension program. Meetings are held less frequently, are called only when occasion demands, are larger, and of much greater import.

There has been a change also in the work of county agents in relation to agricultural organizations. Such organizations as the Farm Bureau and Grange are planning their programs far differently and are holding less frequent but better planned meetings.

Program Building—It is believed that real progress was made in program building. With the advent of the County Agricultural Program Planning project, farm people, as well as county agents and their supervisors, have been taught to think of program work in an entirely different way—approaching it from the county problem standpoint, rather than the need of a well-planned program. In most instances, when the county agent and his com-

mittees analyze the work of a program planning project, they have found that it can be well adapted as a county agricultural and Extension program for their county, and are using it in the development of their projects to promote agriculture. With the aid of comprehensive data and information prepared by the supervisors as a background for each county, the agents and the people of the respective counties gave serious consideration to planning programs looking to several years in advance, and the foundation was laid for exceedingly constructive work, both for the individuals and for the communities and counties as a whole.

Economics and Management—Economics and farm management have continued to have an increasingly important part in the activities of agents and supervisors. Not only have all of the recovery programs dealt with economic aspects of problems, but the rural rehabilitation program, which is very closely associated with county demonstration work, emphasizes farm management in its entire set-up. The demand for more information in farm management created a desire on the part of the county agents for additional assistance from specialists and those informed on various phases of farm economics. The new clients who have of necessity been brought to the county Extension office through recovery programs have new and more varied problems than have been dealt with in the past and require more careful and detailed supervision on the part of supervisors and county agents.

Marketing—The various problems incident to marketing the wide diversity of products from the farms of Maryland continue among the most important considerations. It is not only necessary to approach this problem from the standpoint of improving the grades and standards of farm products, but farmers and organizations must be assisted in many ways in their efforts to place their products on the markets in a manner to dispose of them with best profits. The county agent again finds himself in the role of an administrator, working with the heads of marketing organizations and in adjusting agreements between growers and distributors. It is necessary also that the agent be familiar with the passage of all legislation affecting the sale of commodities and the purchasing of supplies, in order to convey such information to those of his clients who are directly affected.

Fairs, Tours, Etc.—Some of the methods of disseminating information effectively which have proved of value through the years are still worthy of being retained. Fairs, exhibits and tours

have been of service in disseminating extension teachings during the year. The State Fair and the county fairs in all of the respective counties are cooperative and solicit the help of county Extension workers in planning the programs and exhibits. Community shows have gained in prominence during the last several years, giving evidence of the greater interest on the part of farmers and their families in growing better quality products, and in displaying their products to better advantage. Judging contests involving many products and practically all types of livestock and poultry, were supervised by county agents at practically all of the fairs and community shows.

Tours of an educational nature, to points out of the State, within the State, between counties, and within local communities, continue to be in demand and were conducted under the supervision of extension workers.

Negro Demonstration Work

Local Negro agents worked out definite programs with colored farmers and their families. Most of these programs were of a particularly practical nature, the main object being to assist the colored families to live more comfortably at home by maintaining themselves on a "live-at-home" program.

Two full-time local agents, one working with men and boys and one with women and girls, are employed in the Southern Maryland counties, and a full-time local agent and local home demonstration agent worked with the colored people in the southern Eastern Shore counties. The fact that some sections of the State did not have local agents especially designated to work in those sections does not mean that colored people do not receive the assistance of the Extension Service. County agents and home demonstration agents working with the white population serve also the colored people in solving their many problems.

The most outstanding projects engaging the attention of the colored workers are those of gardening, poultry raising, production of meat for the family, and the storage of products for winter. Sanitation around the home was given special emphasis. The income of these families is usually very small, and the Negro worker endeavors to plan a management program which will meet the needs of the family with limited resources available.

HOME DEMONSTRATION WORK

THERE WAS a decided increase in interest of rural families in the Extension program. More project demonstrators and local leaders gave freely of their time and talent and made possible substantial expansion of the work. They helped to sponsor and participated in home demonstration programs.

Homemakers in all counties were aided in utilizing all available resources to the end that their families might enjoy better health and more comforts. Advice was given on consumer knowledge, so that every dollar could be spent with intelligence. Special effort was made to assist young homemakers and the older young people who were no longer interested in 4-H club work and who did not want to affiliate with adult organizations.

The cultural projects of recreation, music, family reading, and art brought all members of the family together in a mutual interest in these subjects. Landscaping, too, was truly a family project, for every member of the family participated and enjoyed the results.

Cooperation and coordination of programs with relief agencies, social workers, the State Health Department, and the Resettlement organization helped in understanding the functions of all organizations.

Income conservation and income production alike were considered in all programs. Some of the phases through which the home demonstration work contributed to both the social and economic satisfaction were: Better knowledge of foods and nutrition, home gardening, clothing, home furnishing, home management, home health, farm women's markets, and the continuation of "Mrs. Consumer and Her Buying Knowledge."

Projects—Phases emphasized and progress made in the major projects are given later. Food in its relation to health and income was a dominant part of foods and nutrition program, with increased attention to child feeding in response to the interest of young homemakers. The program in clothing gave special attention to the purchasing of clothing. Information regarding standard labels and the progress in standardization of textile fabrics proved of great interest to women in their buying problems. Through the home furnishing program women were made to realize that it is not always the expenditure of money that adds a new touch to

the home, and that there is satisfaction in creating something that is at once useful and beautiful at a time when low income tends to make life seem drab and discouraging. Extension of electric lines has been a stimulus to interest in the use and care of electric equipment in the homes in many rural districts. Work in home management during the year was confined largely to such activities as could be coordinated with the program of other specialists, but a specialist in that important field was added to the staff in September and the work is being expanded accordingly.

Landscaping of home grounds continues to be of interest to homemakers everywhere. In addition to their own home beautification projects, many clubs were interested in landscaping the roadsides, school grounds and church grounds.

The family reading course, music appreciation, art and recreation filled a need in the lives of rural families and there was a notable improvement in the quality of songs and pageants, achievement day programs, and other programs sponsored by the demonstration staff

Much interest on the part of young mothers was evinced in a project on child development and parent education. While no intensive work was done, it was conducted on a planned discussion basis and will be continued, with assigned reading as an important supplementary service.

Trends in Organization—The trend the past year has been toward project committees that meet with specialists and the home demonstration agent, analyze the needs of the county, and with the agent and specialist work out a program that will best satisfy the greatest number of people. This plan has taken the place of the county-wide program committee.

Rural Women's Short Course—This event, which was held for the fourteenth consecutive year, has become one of the leading interests in home demonstration work in each county, as well as an established part of the University program. As one woman expressed it, "You cannot spend a week on the campus in meeting women from all over the State, associating with speakers of world renown, and then go home and be the same." The program for this course is cultural, inspirational, practical and helpful, and it is changing the home life of many Maryland women. It is helping them to develop leadership and gives them a vision of the opportunities in adult education.

For the last two years the attendance has reached more than 700 and it is felt that the number must be limited to approximately 700. On the last day of the Short Course, the President of the University presents a certificate to each woman who has attended full time for four years.

Women attending the Course return to their respective communities and give, through reports and demonstrations, things they have heard and learned during the week at the University.

Cultural Subjects—There has been a growing demand for definite work in cultural subjects in addition to the project work.

The family reading course has been a most popular project. Homemakers who have done very little reading in the past have read books. Women who have been great readers have read more. They have given book reviews, kept abreast of current events and lead discussions. The total number of books reported read this year was 26,393, and 555 certificates were awarded.

Music is another cultural subject in which the women have participated actively. Every club now has a music chairman and every county has a music chairman, and many individual club and county choruses have been formed. During the year, they made a study of Folk Songs, with a bulletin on that subject issued during the year as a basis.

A program in art, extending over three years, was prepared. It included a study of the lives of some of the best artists, and pictures which encouraged the women to study and enjoy landscapes.

Farm Women's Markets—Four farm women's markets continued to provide a source of substantial income to a large number of farm women. The greatest income from sales comes from specialties. The home demonstration agents and nutrition specialist assist in keeping standards of products on a satisfactory selling basis.

Assistance was given also to many farm women who sell products at roadside markets, or who have specialties that they sell to private trade.

Achievement Days—Every county in the State held an achievement program during the year. The women look upon these programs as a measuring stick to check their accomplish-

ments and as a challenge for the coming year. In addition, practically all counties joined in groups of two or three and held joint achievement programs.

Negro Home Demonstration Work

Negro home demonstration work continued to render valuable assistance in five counties. The agents featured the Live-at-Home program, which emphasizes the importance of food production and conservation, home clothing, sanitation and health. There was a satisfying return from the food production project. Colored families have come to realize that they must raise their own food and conserve it, in order to have available money to expend for clothes and other necessities of life.

CLOTHING

CLOTHING THE FAMILY continues to be one of the homemaker's major problems. Clothing is the second largest item of living costs.

Objectives of the Program—(1) To help families determine their clothing needs and to meet these needs in the most satisfactory and economical way. (2) To provide information necessary for development of sound judgment in selection and buying of becoming and suitable clothes, so that money is well spent. (3) To help women and girls develop sufficient skill in construction so that satisfaction and efficiency are acquired. (4) To stimulate interest in a movement for labels and advertising giving factual information.

Phases Emphasized—Buying problems, construction, selection, renovation and care of clothing were emphasized. Clothing project leaders gave valuable assistance with groups of homemakers and 4-H club girls—304 women gave 592 days to this project.

Keeping a record of the cost of clothing was stressed with both adults and 4-H club girls. These records are valuable when used as a guide in planning the family living. The findings of records kept for the last six years have been helpful in working out clothing budgets to be used by the welfare and relief agencies, the resettlement project, and persons receiving old age pensions.

General Aspects—Standards of dress of farm families are higher than they were last year. This is due to increased income

and to interest in appropriate and attractive dress. The importance of personal appearance is recognized as a phase of the "Better Family Living" program and as such will continue to receive consideration. At the close of the "Mrs. Consumer and Her Buying Standards" program, which was conducted for a number of years, there was evidence of an increased ability to make better choices in all family wearing apparel—choices based upon factual information regarding serviceability of fabric or garment. There is increased interest in consumer education as a means of insuring purchasing for best value, effective use of available aids, and study of existing and desirable protective legislation.

Extent of Work—It is inevitable that much work is done by those in a project of this character which is not reported. It is estimated, however, that savings due to the clothing program may conservatively be placed at $73,922. Reports of home demonstration agents show a total of 3,216 girls enrolled in clothing projects, and that 2,494 of these completed the requirements, making 3,261 dresses and 9,883 other articles; 7,344 individuals followed recommendations in construction of clothing; 6,420 followed recommendations in selection of clothing; 1,163 kept clothing accounts; 920 budgeted clothing expenditures; 2,203 families followed clothing buying recommendations; 1,578 improved children's clothing; 3,877 improved methods of care, renovation and remodeling; and 2,361 families were assisted with information in meeting clothing requirements.

FOODS AND NUTRITION

THERE NEVER has been keener interest shown by the farm women of Maryland in planning ahead for their yearly food supply and in efforts to produce adequate gardens and provide better storage. There was greater demand for assistance in methods of preserving all kinds of food products produced on the farm, especially meats. The demand for turning these products into cash continued, but was not quite so pressing. While there was more cash on the farms, it was needed for things that only cash could buy.

The foods and nutrition work was closely related to the Federal and State emergency relief work in helping farm women produce their living from their farms, in preserving food for the unemployed, and helping them to prepare low-cost diets.

Results—Among the somewhat definite results are included: 2,816 families reported planning, producing and preserving their required yearly food supply. An increased number of young mothers put forth greater efforts to feed their children intelligently and to help them form good food and health habits while very young. A total of 492 mothers report special effort in child feeding problems, and 1,661 report improvement in the home-packed school lunches.

Because food money is still scarce, more homemakers are especially careful to spend it wisely. They are more concerned about low-cost diets and how to prepare well the foods that are cheap in money value but good in food value. Reports show that 4,309 homemakers served better meals for less money, 2,125 families improved their food buying practices, and 525 families budgeted their food expenditures for the year.

Many women for the first time kept records of food expenditures and attempted to evaluate their farm products in terms of money value. A large number of homemakers put forth special efforts to add to the cash income of the family by producing standard products and selling them in markets or to private customers. Three counties report the addition of $163,520.98 to the family income last year by the women. There was slight evidence of a tendency on the part of a few homemakers to turn their efforts to other phases of homemaking as the cash income improves.

HOME FURNISHING

WORK in home furnishing, in some of its phases, was carried on in practically every county, either by homemakers or 4-H clubs, and sometimes by both. Women spending money for furniture were interested in consumer education, as well as the development of skills necessary to maintain the upkeep and repair of home furnishings at minimum cost. Purchase and intelligent use of furniture and furnishings were emphasized in the program.

An important part of the program was focused on color and design as they affect values in selection of wall paper, linens, china and small furnishings, which provide a background in the home and contribute to the satisfaction of family life, self-respect and pride in the home. Some counties carried projects in picture studies, framing and hanging of pictures.

The work was given directly to groups interested in some phase of the project. Training schools were held in upholstering, and in making slip covers and hooked rugs. Project demonstrators trained at these training schools carried the information back to their communities and used their homes as demonstrations to pass the information on to women outside of club work.

The repair program was conducted principally by the specialist in home furnishing, assisted always by the home demonstration agents. It consisted of chair seating, refinishing furniture and upholstering.

Many women are adding to the family income by making slip covers, re-caning chairs, making hooked rugs and in some instances upholstering furniture. Many cheerless rooms have been made bright and interesting because the homemaker was able to express herself in decorative practices, rather than because of the amount of money spent.

HOME MANAGEMENT

WORK IN THIS FIELD during the year was principally the efforts of home demonstration agents, with the cooperation of specialists in allied fields. A specialist in home management was added to the staff in September and the work was placed on an organized basis.

For a period of six weeks the services of the home management specialist were loaned to the Board of State Aid and Charities, during which time she prepared a comprehensive manual entitled "Budget Guides for Families Receiving Public Assistance."

Specific objectives in the plan of work that has been outlined are:

1. Help the farm family realize the value of home farm accounts and work out a system of record keeping practical for their needs.

2. Assist the homemaker in making her financial plans, using the specific information which she has gained from her accounts already kept—plans that meet the needs of the family in the most satisfactory way and still keep within the bounds of the income.

3. Help rural families to recognize the importance of the contribution of the farm to family living.

4. Assist the homemaker in arranging and equiping her workshop, the kitchen, to give the greatest amount of satisfaction and require the least time and energy.

5. Assist families in planning for house improvement, either in remodeling, electrification of the home, water systems, laundry problems, or storage spaces, with conservation of energy and money in view, yet giving best quality and most satisfaction to the entire family.

As a beginning, a program of farm family accounts was established in which a few farm families from each county are cooperating. In most of the counties, 4-H club girls are keeping records of their personal expenditures and income.

GIRLS' 4-H CLUB WORK

GIRLS ENROLLED in 4-H club projects did a substantial amount of educational demonstration work, with a completion percentage of 77% for white girls and 81% for colored girls. The enrollment of 5,907 was an increase of 255 over last year.

Delegates from Maryland to the National 4-H Club Camp in Washington. From left to right, they are: Merhle Ifert, Frederick County; Mary Hutchinson, Talbot County; Douglas H. Lee, Baltimore County; Ailene E. Williams, Calvert County; and Mylo S. Downey, Assistant State Club Leader.

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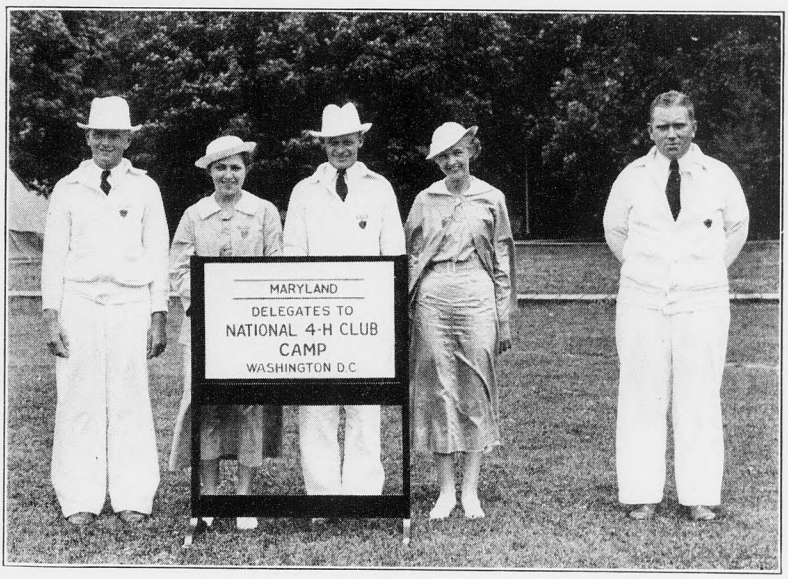

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Leaders—Local leaders continued to give volunteer service in the counties, so that the 4-H club program could be expanded. Special attention was given this year to training adult leaders in more effective use of teaching methods and devices to use in presenting subject matter to young people. At 168 training conferences, 349 leaders were given training. A careful study made this year of figures from reports and an analysis of results enabled field workers to strengthen the 4-H program in weak spots and made for progress in the work.

Clothing—The clothing club members made 13,144 dresses and articles, and 315 girls kept clothing cost records. Several hundred girls entered the 17 county and State dress revues. The clothing entered in National Clothing Classes (wool and cotton dresses, complete outfit, children's garments, and window curtains) all placed in the blue ribbon class. The State entrant in the National Dress Revue placed in the blue ribbon class also. It was evident that the standard of workmanship throughout the State Clothing Exhibit was creditably higher than in previous years.

Foods—Records show that food club members put up 57,499 containers and dried 838 pounds of products for winter meals, prepared 27,031 food dishes, and served 12,536 meals this year. Considerable work was done with school lunches. A state exhibit of canned products was held in the Fall as usual and jars were sent to the National Exhibit in Chicago. They were awarded several hundred dollars as prizes. Garden club members worked out family food budgets in connection with their garden and food preservation work.

Camps—Five camps were conducted in which 4-H club girls from seven counties participated. It is generally agreed among extension workers that camps entail a great amount of work but that the results justify the efforts. As one home demonstration agent expressed it, "Camp is an immense amount of work, but worth all the trouble. It affords an opportunity to teach what it is impossible to teach otherwise, binds the girls together in closer, wider friendship, and the loyalty thus created toward 4-H club work is something the public can see and understand."

Older Youth—Groups of older youths were active in 12 counties, holding meetings monthly with educational and recreational programs. The members assisted agents by leading clubs of

younger members and sharing the responsibilities connected with county-wide 4-H activities. An older youth survey was conducted in five counties to help determine the needs, so that a more comprehensive program may be worked out to assist youths in solving their problems.

Important Events—Two Maryland club girls attended the National Camp in Washington, D. C., and four girls attended the National 4-H Club Congress in Chicago. A state Club Week was held at the University with attendance of 454, and a short course for colored 4-H club members was held at Princess Anne Academy.

BOYS' 4-H CLUB WORK

THE NUMBER REACHED by Boys' 4-H Club Work, in terms of accomplishment, was the largest in 1936 of any year in the history of club work in Maryland. The total enrollment, including white and Negro club members, was 4,323. With 84% of the enrollment completing projects, there were more rural youth reached by club work than in any previous year.

1936 Enrollment and Completions

	Enrolled			Completed		
	Boys	Girls	Total	Boys	Girls	Total
White Club Members....	3,090	105	3,195	2,588	101	2,689
Negro Club Members....	888	240	1,128	754	195	949
Total.....	3,978	345	4,323	3,342	296	3,638

Project Work—At the beginning of the year, an assistant in Boys' Club Work was added to the staff and given the special task of developing livestock work among 4-H club boys. As a result, there was an increase in these projects of 130 club members. This trend is accounted for by growing interest among breeders, awards for livestock exhibits offered at shows in Baltimore and in Washington, Frederick and Talbot Counties, backed up by special attention given by the Extension Service. Organized colt club work expanded from one county to three counties, with 107 boys enrolled.

The quality of dairy cattle owned by club members was maintained; 632 dairy club members own 967 head of purebred calves and heifers. Eighteen counties sent judging teams to the Ti-

monium Fair to participate in the State judging contest. The four highest counties were Harford, Baltimore, Carroll and Garrett.

Poultry club work was of great value to that increasingly important industry. Many club members are developing fairly large flocks on a profitable basis and are becoming active in problems of the industry.

Garden work increased, as did the work with some crops, especially corn. Boys in Carroll, Harford and Howard counties enrolled in a Rural Electrification club program, which dealt largely with making splices, home appliance repairs, simple wiring, etc. Each club held an open meeting for other members of the community at which time they exhibited their work and gave lighting demonstrations.

Twenty boys of three counties completed and sent to headquarters for audit a year's record of their home farms. They made an analysis of the business and recommended changes for its improvement. Seventy-one boys kept some form of farm accounts during 1936 and will complete them in January and February.

Robert A. Shoemaker, of Westminster, winner of first prize for the Eastern States in a national contest for the best farm account book kept by a 4-H club member. His mother is interested, too.

An interesting piece of work was accomplished in Montgomery county, largely in cooperation with the Junior Isaac Walton League, in which 260 boys and 30 girls carried through projects in wild life conservation. About 100 acres of grain was planted for field winter feed for birds.

Club Week—It has been the aim to improve the annual 4-H Club Week at the University each year and in 1936 the success was marked. All the affairs of the week were better coordinated than ever before and the leadership of outstanding former club members was most helpful. Conferences of adult leaders held at each meal time added to the efficiency. Four hundred and fifty-four boys and girls enrolled and on Saturday and Sunday more than 200 older youth came for special affairs, such as the All Star meetings and consecration, and the Older Youth Conference. Demonstrations for boys included, besides dairy and livestock, very interesting wood shop work. Camp fires, vespers, demonstrational parties, field recreation, and tribe meetings were unusually well planned and carried out.

National 4-H Club Congress—For the first time since 1930, Maryland was represented by 4-H club boys at the National Club Congress. The trip of Theodore Redman, winner of the fat stock judging contest, was financed by the Union Stock Yards of Baltimore. Guy Nelson, Jr., who was selected as the club member with the most outstanding record in livestock work was given a trip financed jointly by the Union Stock Yards and the Maryland Bankers' Association. The latter organization financed also the trip of Maurice Ahalt, who was selected because of his local leadership work. Grafton Timberlake was sent to Chicago by the Westinghouse Electric Company as the sectional winner in a contest sponsored by that company. He was awarded third place in the national contest and will receive a $200 scholarship.

National Dairy Show—In spite of the fact that the National Dairy Show was held more than 1,600 miles from Maryland, a 4-H dairy cattle judging team represented the State in the contest held there. Although the team placed seventh, Steve Close, a member of the Maryland team, made the highest individual score in the contest.

Timonium Fair—Judging and exhibiting dairy cattle and exhibiting swine are the boys' 4-H club activities at Timonium Fair. An interesting feature this year was the fact that James W. Davis,

monium Fair to participate in the State judging contest. The four highest counties were Harford, Baltimore, Carroll and Garrett.

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Timonium Fair—Judging and exhibiting dairy cattle and exhibiting swine are the boys' 4-H club activities at Timonium Fair. An interesting feature this year was the fact that James W. Davis,

who was highest scoring individual in the contest, is the son of Gladden Davis, who won the first dairy cattle judging contest at Timonium 24 years ago. The 103 dairy cattle exhibited were of the usual high quality, and better fitted than in former years.

State Poultry Judging Contest—Teams from fourteen counties took part in the State Poultry Judging Contest, held at Ayrlawn Farms. The St. Mary's County team of three girls, coached by the home demonstration agent, Miss Ethel Joy, won the contest. The three highest scoring individuals who later comprised the State team sent to the National contest in New York were members of other teams.

A team composed of three St. Mary's County girls, coached by the Home Demonstration Agent, took highest honors in the State 4-H Club Poultry Judging Contest. Left to right, they are: Elaine Woodburn, Hope Swann, and Mary Greenwell. Miss Ethel Joy, Home Demonstration Agent, is receiving the cup.

Maryland Camps—The seventh annual Tri-County camp, held in Western Maryland was attended by 73 boys from Garrett, Allegany and Washington counties. A conservation program, along with usual activities in handicraft, recreation and camp fires, made the camp one of the best held in that section of the State.

The Harford County Camp, which is one of the oldest 4-H activities in the State, was up to its usual high standard. Ninety-five 4-H girls, boys and leaders attended and enjoyed the six-day program. This is the only county in the State that owns a permanent camp.

Maryland Bankers' Association—Because of economic conditions, this organization was obliged to discontinue awarding money for 4-H club inspirational affairs for several years. At their convention in May, it awarded $500, and Judge Frank I. Duncan, who has done much for club work for a number of years, was reappointed chairman of the Agricultural Committee. In addition to providing the trips for 4-H club members to national events already mentioned, the generosity of this organization materially assisted Club Week.

Baltimore Livestock Show—Participation in this event was increased and 18 boys exhibited fat lambs, 14 showed fat swine, and 12 showed beeves. The Schluderberg-Kurdle Company offered special awards to stimulate interest in swine feeding. The first fat stock judging contest for Maryland 4-H club boys was held in connection with the Show, and teams from 13 counties competed in judging three classes each of fat cattle, fat swine, and fat lambs.

Older Youth Groups—Ten county groups of young adults met regularly and had educational and social programs, under supervision of county and home demonstration agents. Most of the 258 young men and 284 young women in these groups were former 4-H club members. Nearly all groups have three general aims: 1. Each group undertakes county and community activities in connection with the Extension Service programs; 2. Each individual undertakes some worth while activity in which he will improve his practices; and, 3. Each group endeavors to find the most important State-wide activity in which all will participate later on.

Negro 4-H Club Work

There are two Negro men agents in Maryland. They enrolled 888 boys and 240 girls in club work in 1936, a gain of nearly 10%. Of this number, 754 boys and 195 girls completed projects

These agents reported four judging teams. They had four Older Youth groups, with a total of 98 young men. There were training meetings for 248 local leaders or committeemen, and method

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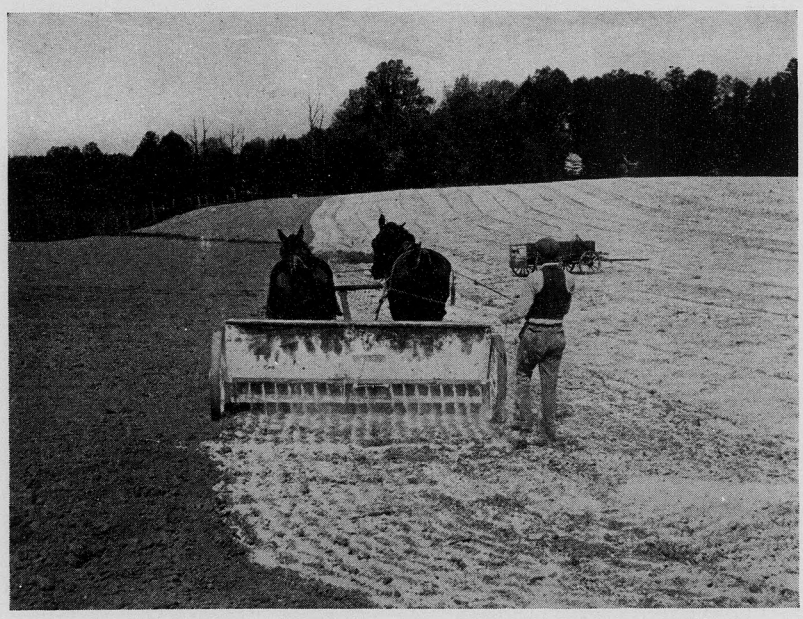
demonstration meetings, which evidently included club meetings, numbered 568. The annual encampment at Princess Anne Academy was a successful event, with 61 boys and 80 girls enrolled.

AGRONOMY

DUE TO THE EMPHASIS that is being placed upon conservation of soil fertility, at least in part, and also to greater interest in efficient production, the demand for assistance on soil fertility problems has shown decided increase. For that reason, it was necessary to modify somewhat the program of work planned for this project, as outlined at the beginning of the year.

Soil Fertility—By means of a carefully worked out system in cooperation with the Experiment Station, it was possible to give specific assistance to nearly 2,000 farmers and others who had soil fertility problems in fields, lawns, gardens, or greenhouses. These persons brought or sent to the University 5,862 soil samples to be tested by a new rapid method. By means of these tests, the amount of plant food present, as well as the acidity, toxic properties, and other factors influencing plant growth, were determined.



The Soil Conservation program has given new impetus to liming and other soil-building and soil-conserving practices.

With this information, together with as complete understanding of the soil as could be obtained from crops grown upon it, very definite suggestions and recommendations were made as to types of treatment and methods of soil management which offer greatest prospect of success.

In addition to the service rendered through this more intensive activity, there was increased interest in general soil fertility and soil conservation problems, especially in connection with the program carried out under the AAA. The question of making the adjustments between soil-depleting and soil-conserving crops, and carrying out the soil-building practices prescribed in the program resulted in innumerable calls upon specialists and agents for advice and information.

Seed Improvement—Great progress was made in improvement of farmers' seed wheat and in making available more certified and tested wheat and other grains. Inspection of the wheat fields of 63 applicants showed 17 fields with 7,370 bushels as eligible for certification. In the case of barley, 12 fields, supplying 4,135 bushels of seed, were passed for certification. Of these, 4 fields, supplying more than 1,500 bushels of certified seed, were of the new smooth-awned variety developed by the Maryland Experiment Station. This seed was well distributed over the State, and next year there should be a large supply of the seed. Since the absence of rough beards removes the objection to barley that many have, and the fact that this variety yields well, should soon bring about a larger acreage of this crop

Seed Treatment—Efforts to assist and encourage farmers in treating seed wheat for smut have continued through a period of years. This practice is carried out quite extensively, especially in seasons when the disease is prevalent. A barrel machine designed by the Extension Agronomist is used widely. As an outgrowth of that method, Kent county is taking the lead in establishing still larger machines, one of which goes from farm to farm. These machines not only treat the wheat, but clean out very thoroughly the cockle, garlic and other weeds, and also the light, chaffy grains. There was notable improvement last season in the way of cleaner fields and better wheat in that county.

A smaller portable machine was established in Baltimore county and there is reason to believe that through the cooperation of the county agents, Farm Bureau, and other agencies, this method of

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Corn Improvement—To develop and maintain sources for an adequate supply of high-class, well-adapted seed corn has been one of the aims of this project for a number of years. By means of corn shows and otherwise, representatives of the Service keep in close touch with corn growers and collect and disseminate information pertaining to the situation, the sources and supply available, and other factors which will help growers meet their seed corn needs. This activity during the last year has included attention to growers of corn from hybrid seed. Judging by results so far obtained, it appears that hybrid seed produces corn that will stand up, when local corn goes down severely by storms.

ANIMAL HUSBANDRY

INTEREST in certain phases of the livestock industry showed exceptional development during the year. This was reflected especially in connection with projects dealing with beef cattle and horses. Expansion in facilities at the University for service to the livestock industry is helping the Extension Service to keep pace with the demands in this line of work.

Beef Cattle—Doubtless the outstanding achievement for the year was the phenomenal growth and development in certain phases of the beef cattle program. Breeders of Aberdeen-Angus cattle were especially active in promoting their breed and, with the cooperation of representatives of the Extension Service, two very successful shows and sales were held. From the success of sales, both public and at private treaty, there is ample evidence to counteract the more or less prevalent idea that there is no room for beef cattle in this territory, and that beef cattle cannot be made to pay.

There was increased demand also for services of the somewhat established types having to do with the feeding and management of beef animals. Encouragement of improved pastures and more efficient use and management of pastures was one of the major activities in connection with the feeding program for all types of beef animals.

Horses—Attractive prices for horses, together with a scarcity of good, young work stock, have given quite an impetus to work

in this line. A number of counties caught the enthusiasm and were intensely interested in projects pertaining to breeding, care and management of horses. There was an influx of purebred draft horse breeding stock and the Extension Service had a very impor-

Colt clubs have become increasingly popular during the last few years. Here we see 4-H club members in Washington County judging Belgian stallions.

tant part in this progress. An outstanding single accomplishment in this direction was the selection of 20 head of purebred mares and one purebred stallion by the specialist in animal husbandry. These horses were purchased from breeders in the Northwest and came to two farms in Frederick county. Assistance was given to many in their efforts to obtain suitable draft horses of high quality.

One of the features of the greatly increased interest in good draft horses was the activity of boys in 4-H colt clubs and the exceptionally fine progress made by them. This feature is reported more fully under 4-H club work.

Draft horses became an important feature of fairs and livestock shows, with corresponding demands upon the Service for assistance along the line of fitting and showing.

Sheep—Production of early lambs of high quality continued to be a major objective and demonstrations on various phases of flock management had a prominent part in the program. These

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included drenching and dipping, docking and castrating, flock culling, pasture utilization, shearing, and marketing tours and demonstrations. Purebred rams shows and sales, which for a number of years have been a major part of the work for improvement of the sheep flocks of the State, were discontinued, at least temporarily. Whether this activity has to a degree served its purpose remains to be determined, but some of the breeders at least have been able during the last year to dispose of their rams to good advantage, both locally and through the eastern territory.

Swine—Work in this field was focused largely upon sanitation and pasture utilization. The best organized efforts were by boys in 4-H clubs and records made by them in some counties were outstanding. A round-up held in Washington county resulted in a very successful show and sale. Significant of the quality of pigs raised by the boys is the fact that the champion barrow and the champion pen of three barrows at the Baltimore Livestock Show were the entries of pig club boys.

Meats—A substantial beginning was made in the field of meat slaughtering, cutting, curing and canning. Demonstrations along this line were held in cooperation with the home demonstration specialist in foods and the agents in the counties. Lamb, beef and pork were included in the demonstrations and all practical phases of handling meats from the time the animal is slaughtered until the meat is ready for cooking, or is preserved by curing or canning, were shown. Work in this field will be developed.

HORTICULTURE

ANALYSIS OF THE PROBLEMS connected with the fruit growing industry indicated that growers needed to consider improvement of orchard soils, both in fertility and in water-holding capacity. Soil erosion was also a serious factor. Other problems were: Removal of diseased and weak trees and unprofitable varieties; more detailed pruning as a means of promoting better size and color and making better spray coverage possible; use of fruit thinning to remove culls and improve the general quality of fruit; color and size; use of fall and spring applications of nitrogen fertilizer, with adaptation of form of fertilizer to time of application; use of practical and effective methods to promote better pollination and fruit set; and careful use of sprays that would be most effective, yet cause little spray injury and leave minimum spray residue on the fruit at harvest.

Major problems with small fruits included control of diseases in grapes and use of the Kniffen system of pruning for maximum production of good fruit; use of better varieties and control of diseases of raspberries; and use of new and better adapted varieties of strawberries, together with adoption of a method of spacing plants in such a way as to insure higher yields, better size and quality, and to reduce wastage at picking time

Extension activities during the year were designed to work toward solutions of the problems outlined.

Tree Fruits—Soil improvement demonstrations included mulching of trees; fertilizing the cover crop; effect of various forms of nitrogen fertilizer applied at different times during the year; and use of strip cultivation with cover crops maintained between the tree rows. Each of these practices was shown to have beneficial effects under certain conditions

There was greater than usual demand for assistance and advice with respect to tree removal and the planting of suitable varieties. Following two severe winters, there was considerable tree injury and several thousand trees were removed because of such injury, disease, weakness, or unsuitable varieties. There was considerable replanting, but not in proportion to tree removals.

Pruning was given greater attention, both as a means of building better tree framework and because of its effect upon fruit color and size. It was demonstrated in 62 orchards.

Due to the short crop, thinning was not done as extensively as in normal years. It is an essential practice, however, so that considerable publicity was given to thinning and nine demonstrations were held.

Pollination has been a serious factor in some orchards. No formal demonstrations were planned, but advice and supervision were given in several orchards. Use of bees and bouquets of bloom of desirable pollinating varieties have shown practical value and such methods are being used increasingly in Maryland orchards where pollination is a problem.

Growers were given personal advice on the use of proper sprays and were encouraged to spray carefully, yet thoroughly, in connection with the spray service that has been maintained for a number of years.

A test plot on which porous canvas hose was used in an experimental way was the center of interest during a Strawberry Field Day. Promising results were obtained by this method of irrigation under the dry conditions which prevailed in the strawberry-growing sections of the State this year.

Small Fruits—Work with small fruits was conducted mainly through field meetings. Strawberry growers were shown the actual use of spaced plants in narrow rows, and the effect upon yield and quality. A demonstration plot of all available and adaptable new varieties of raspberries was planted in the raspberry growing section of Western Maryland.

Fruit Marketing—Assistance was given growers in a definite campaign to improve marketing conditions with respect to fruit. One of the principal aims was to counteract the decline in consumption of apples. Growers' organizations in Maryland, Pennsylvania, Virginia and West Virginia joined together in an effort to advertise the apples of the region included. Approximately one-half of the commercial apple production of Maryland was subscribed toward an advertising fund and the results of the first year are considered quite satisfactory. In connection with this project, five demonstrations of packing and grading fruit were given to improve the growers' packed fruit.

ORNAMENTAL AND VEGETABLE GARDENING

REGULAR PROJECTS in the field of ornamental gardening have gone forward despite the necessity for devoting considerable time to emergency efforts.

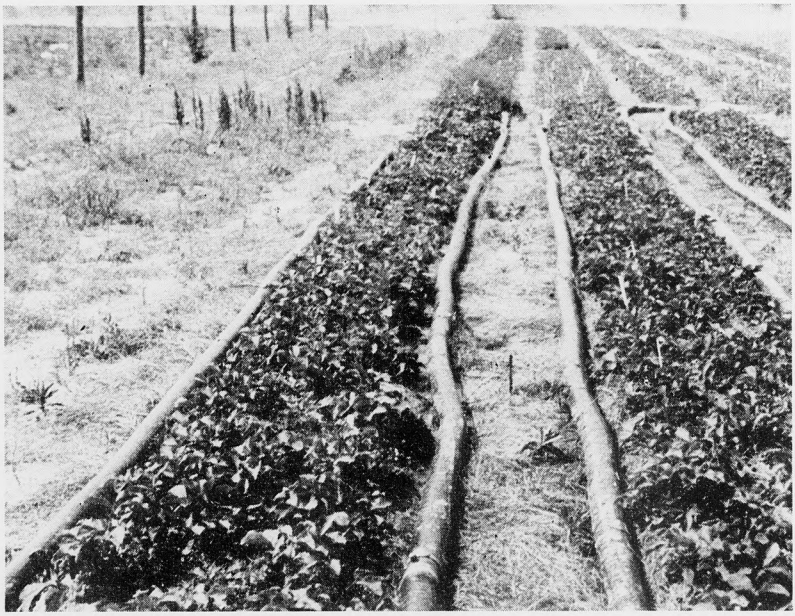
Home Ground Improvement—The primary purpose of this project is to arouse interest in the beautification of home grounds and to stimulate interest in the best methods of securing satisfactory results. Cooperators are urged to concentrate on one phase of the program each year and to follow as closely as possible the outline worked out for the project. Reports indicate that nearly 2,900 homes made some improvements to home grounds during the year. A few new counties undertook organized efforts along the lines of home improvement, in addition to those in which the work had developed to some extent in former years.

Landscape Plans and Advice—A total of 117 requests for landscape demonstrations was received. Twenty-three of these were school grounds, 46 were home grounds, 31 were parks and civic undertakings, and 17 were of miscellaneous character. Seventy-four landscape plans and reports were prepared.

Public interest in landscape work was more than maintained, the good attendance at various garden schools surprising those responsible. The tendency of specific requests for assistance seems to be toward public enterprises, undoubtedly because of realization of the value and need for efficiently and artistically designed public areas. This has come about largely as a result of years of educational work by various agencies and the final stimulus given to it by nation-wide federal activity along lines of landscape development. In line with this public interest, assistance was given to the Department of Forestry in the development of numerous state park areas as a part of CCC activity.

The interest of individuals in improving their home grounds was evident in the garden schools held in nine counties. More than 600 people attended and received information and advice from specialists of the Service, leaders of homemakers' clubs and visiting nurserymen and florists.

Exhibits—An activity that required considerable time and was not exclusively associated with landscape gardening was carried out in connection with the Seventeenth National Flower and Garden Show of the Society of American Florists and Horticul-



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A similar exhibit was installed at the Timonium State Fair, and less pretentious exhibits at a number of other places.

Vegetable Gardens—Demonstrations in growing cool climate vegetables, such as market peas, cauliflower, lettuce, brussels sprouts, broccoli, and celery, were conducted in Garrett county. Dry weather interfered somewhat with growth of the crops, but interest is being aroused and prospects for commercial enterprises appear brighter.

Variety tests of tomatoes, lima beans, snap beans, cucumbers, cantaloupes, watermelons and sweet potatoes were conducted at Salisbury and at College Park. All crops yielded satisfactorily, except cucumbers and melons, and growers evinced considerable interest in the results.

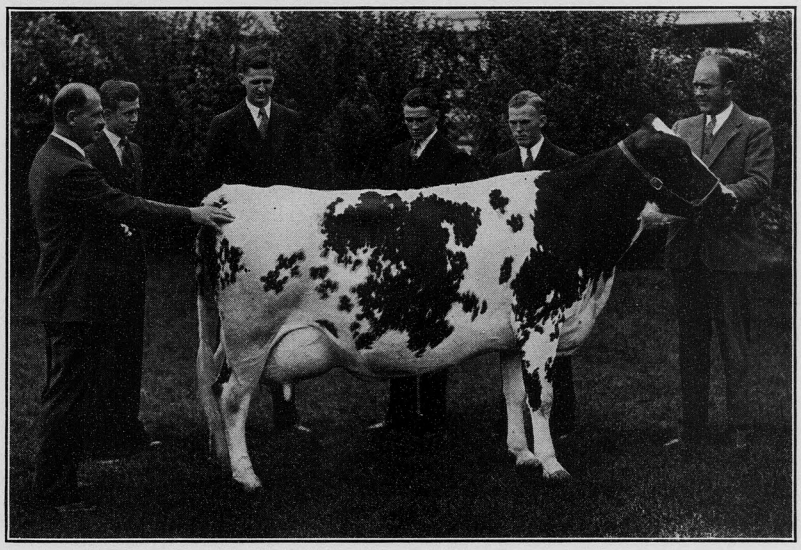
These demonstrations were made possible through cooperation of Experiment Station workers.

Home demonstration agents and relief workers achieved excellent results in their campaigns for better home gardens and winter storage of vegetables, with the assistance of specialists.

Assistance was given the Maryland State Vegetable Growers' Association and the specialist served as secretary-treasurer of that organization.

DAIRY HUSBANDRY

WORK IN CONNECTION with production phases of the dairy industry continued along practically the same general lines as during the last few years. As usual, problems associated



The 4-H Dairy Cattle Judging Team, which represented Maryland at the National Dairy Exposition, held at Dallas, Texas. The team placed seventh in the national judging contest. From left to right, they are: H. C. Barker, coach; James Davis and Steve Close, Harford County; William Hansel, Allegany County; Frank Stiles, Montgomery County; H. M. Carroll, county agent for Harford County.

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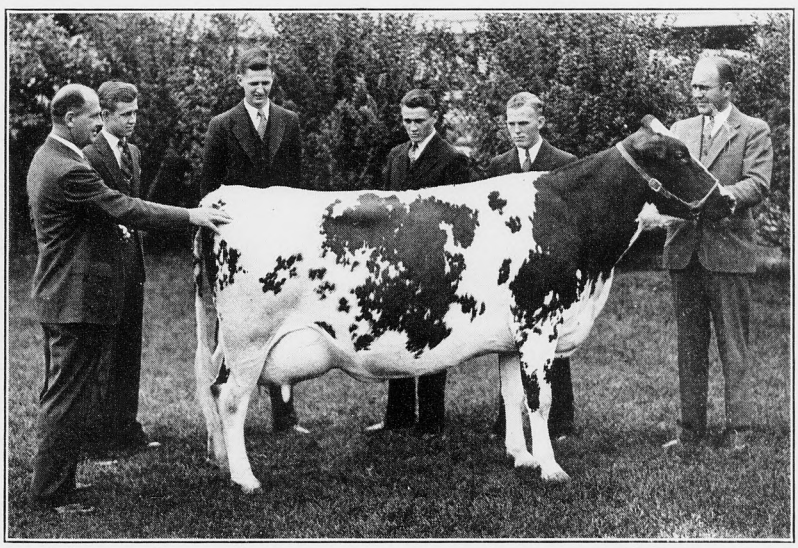
Home demonstration agents and relief workers achieved excellent results in their campaigns for better home gardens and winter storage of vegetables, with the assistance of specialists.

Assistance was given the Maryland State Vegetable Growers' Association and the specialist served as secretary-treasurer of that organization.

DAIRY HUSBANDRY

WORK IN CONNECTION with production phases of the dairy industry continued along practically the same general lines as during the last few years. As usual, problems associated



The 4-H Dairy Cattle Judging Team, which represented Maryland at the National Dairy Exposition, held at Dallas, Texas. The team placed seventh in the national judging contest. From left to right, they are: H. C. Barker, coach; James Davis and Steve Close, Harford County; William Hansel, Allegany County; Frank Stiles, Montgomery County; H. M. Carroll, county agent for Harford County.

with marketing constituted some of the most important problems of the industry and all assistance possible was given by members of the Extension Service in dealing with the problems that arose. In most activities along that line the specialists and agents of the Service cooperated with the milk marketing organizations. There are three such cooperative organizations serving the milk producers of Maryland—the Maryland Milk Producers, Inc., serving those shipping to the Baltimore Market, the Inter-State Milk Producers' Association, serving those shipping to the Philadelphia market and the Maryland-Virginia Milk Producers' Association, serving the shippers to the Washington market. Close cooperation was given at all times to these organizations, both in their relations to their members and to the distributors, as well as in educational efforts in behalf of improved conditions in the industry.

Herd Improvement—Regular testing of cows and keeping of systematic records has been a feature of extension work in dairying for a number of years and definite progress was made in 1936. Approximately 5,200 cows were tested regularly, and records were kept of their production and amount and cost of feed. The number of herds included in improvement associations was increased in six counties. Average production for cows in the associations as a whole was 7,405 pounds of milk and 313 pounds of fat, compared with 7,154 pounds of milk and 305 pounds of fat the preceding year.

There were eight herds that averaged more than 400 pounds, and 67 herds that averaged more than 300 pounds of butterfat.

Of the 14 dairy sires proven through herd improvement records, eight increased production of their daughters, and six decreased production of daughters.

A feature added to the dairy herd improvement work, which is of especial value to members who wish to follow a long-time breeding program, was an opportunity for keeping a life history record of each cow and recording of the permanent records in the office of the U. S. Dairy Bureau. Life history records were started for a number of herds.

Recognizing the important part played by the tester in the degree of success achieved by a herd improvement association, a definite effort was made to improve the efficiency of those engaged as testers. To that end, an educational conference on practical

phases of milk testing and herd improvement work was held at the University.

Advanced Registry Testing—This work is really divided into two divisions—the regular Advanced Registry testing, and the Herd Test. Evidence of the sustained and growing interest in this line of work is found in the fact that the last year shows the second largest increase in testing in Maryland, being exceeded only by 1935. On December 1, 1935, there were 46 breeders testing a total of 946 cows; at the end of 1936, there were 60 breeders testing 1,249 cows, which is an increase of 30% in number of breeders testing and 32% in number of cows on test. The regular Advanced Registry work has remained about constant, and the big increase was in Herd Testing.

Advanced Registry work, from the standpoint of breeds, shows that more Guernsey records were completed in 1936 than for any previous year and that 1936 was the second highest year for Holsteins.

Purebred dairy cattle breeders are rapidly adopting the Herd Improvement Test, and national breed associations have been emphasizing its importance since 1926, the beginning of the Ayrshire Herd Test. In 1927, the Holstein-Friesian Association and the American Jersey Cattle Club inaugurated a herd test, and five years later, 1932, the American Guernsey Cattle Club came along with a modified Herd Test plan. At the end of 1936, there were 32 herds, with 942 cows, in Herd Tests. Two herds discontinued testing during the year and six herds were added.

A mimeographed publication, called "Advanced Registry News," was sent each month to a list of 200 breeders who are doing testing in one form or another, and also to a few additional people who are interested in the work. It gave information on progress of the testing work and a list of breeders having listed cows of the several breeds.

Dairy Farm Management—So many calls for information on temporary silos were received that a special mimeographed circular on the subject was prepared and disseminated. Records of county agents show that assistance was given in location and construction of 92 dairy buildings and 64 silos. There was increased interest in problems associated with plans of farm management best adapted to efficient and economic maintenance of dairy herds and production of dairy products.

Dairy Products—Although Maryland is principally a market milk State, there is considerable demand for assistance in improving the quality of dairy products for use in the homes and for sale at local markets. Demonstrations were held in making and scoring such dairy products as American cheese, cottage cheese, butter, and culture buttermilk.

Field Days and Shows—Within recent years there has been rapid increase in the development of Field Days and Shows, as a means of promoting the interests of the various breeds of dairy cattle, and the dairy industry as a whole. Specialists and agents of the Extension Service have given every assistance to this development and have found such events among the most effective means for conducting educational activities, both with adults and with 4-H club boys. Judging demonstrations and contests are a feature of practically all field days and shows and extension workers usually conduct these demonstrations, or have a prominent part in their arrangement, as well as any other educational features.

Bang's Disease Control—Active cooperation has been given to the Livestock Sanitary Service in the campaign to control or eradicate Bang's disease from the dairy herds of the State. Much of the educational work in connection with this campaign, its importance, the loss caused by the disease, methods of procedure in order to have herds placed under observation, and other factors concerned, has been carried out by the agents in the respective counties and by the specialists in dairy husbandry.

MARKETING

IN MARYLAND, the activities of the Extension Service along the many lines associated with marketing are closely interwoven with service and regulatory measures carried out by the State Department of Markets. The wide diversity of farm products produced in the State affords a corresponding range in the marketing problems confronting producers.

Inspection and Certification—Following the custom which has been in vogue for a number of years, the inspection service not only inspected and certified the quality of various commodities, but served as a general marketing activity. To this end, special attention was paid to actual grading and packing operations, giving growers, graders and packers the benefit of the experience of highly trained inspectors.

During the rush season, the inspection of fruits and vegetables reached a peak of more than 100 cars a day, and 500 cars a week. A larger percentage of the total production of potatoes, apples and fresh tomatoes was inspected than ever before since the service was inaugurated. Farm products to the value of more than $2,000,000 were inspected during the year. They included: Strawberries, 13,245 crates; potatoes, 201,780 barrels; fresh tomatoes, 181,875 lugs; apples, 401,100 bushels; peaches, 132,660 bushels; sweet potatoes, 48,776 bushels; cannery corn, 3,339 tons; cannery peas, 488 tons; cannery tomatoes, 21,516 tons; and eggs, 27,050 cases.

For several years it has been advocated that green wrapped tomatoes shipped from the lower Eastern Shore be packed in accordance with established U. S. Standards, believing that better prices and wider distribution could be effected. At the beginning of the shipping season this year, one shipper decided to avail himself of inspection and certification of this commodity. Immediately after he began to quote to the trade inspected tomatoes, covered by Federal-State certificates, other shippers applied for the service. It is estimated that between 350,000 and 400,000 baskets of tomatoes were marketed as "green wraps," which in some measure at least accounted for the price of cannery tomatoes remaining high to the end of the season.

Seed Certification—The Maryland Seed Certification Board, inaugurated in 1924, represents various departments of the University, including the Experiment Station, Extension Service, and State Department of Markets. Field inspections are made by various specialists and upon their approval and recommendation qualified inspectors of the Department of Markets examine the seed when graded and packaged. If found to comply with specified grade requirements, each package is closed with the official tag and seal of the Board.

An unusually large acreage of late potatoes was planted in Somerset and Worcester counties, most of which was eligible for certification. Unfavorable weather caused a very light crop and scarcely enough seed was grown to take care of the demands of local growers.

Poultry Certification—Following the procedure of the Seed Certification Board, the Maryland Poultry Certification Board was organized in 1934. The primary function of this Board is to

carry out the provisions of the State Poultry Improvement Plan. At present, improvement is conducted in but two breeding stages —Approved and R. O. P.—both of which require blood testing, which is done by the Livestock Sanitary Service. All stages of breed improvement work are under the supervision of the poultry marketing specialist. In addition, he does the culling in some flocks, supervises Federal-State egg inspection, inspects eggs where regular inspectors are not available, and engages in other poultry marketing activities.

Egg Marketing—Efforts to improve the quality and price of Maryland eggs resulted in greater use of Federal-State inspection. Up to November 30, one company in Baltimore had handled 433,872 dozens, as compared with 263,245 dozens for the corresponding period in 1935. Prices paid to producers were one to three cents above the New York quotations for comparable grades.

Federal-State egg grading was installed for one company in Washington on February 1, and for another company on May 4. For these two companies, 268,608 dozens had been graded up to November 30. Supervision of egg grading is provided by the specialist in poultry marketing.

Grades and Standards—In conjunction with inspection of various agricultural commodities, certain problems arose which indicated the necessity for investigation of some of the factors involved. Perhaps the most outstanding instance of this kind pertained to the maturity factor in raw peas. Due to the desire of a number of canners for some method of quality grading of the raw product, an effort was made to develop such a method. While further work is necessary, a formula and mechanical method of procedure were developed by which it was possible in 95% of the samples handled to predict the grade, either exactly, or to be only one point or not more than two points off.

Better Distribution—This type of work was quite varied and involved numerous conferences and activities with different groups.

In cooperation with a number of agencies, an effort was made to develop grower-demand for sweet potatoes.

Groups of truck crop growers indicated a desire that something be done concerning competition of out-of-state motor truck operators hauling produce to the Baltimore market. Conferences were held, the outgrowth of which was an apparent need for legislation

authorizing the Board of Agriculture to establish grades and standards for such products, and promulgate rules and regulations concerning marketing containers.

Lack of proper physical facilities on the Baltimore market presented a problem affecting distribution. Following conferences with agencies interested, a survey was made of the amount of perishable commodities coming to that market from various sources, and their distribution from the market. Definite recommendations for improvement were made to the Mayor and City Council.

Assistance to Cooperatives—It has always been the policy to render every service that facilities would permit to the cooperative marketing organizations of the State. This has included the organizations handling the product of Maryland milk producers—the Maryland Cooperative Milk Producers, Inter-State Milk Producers' Association, and Maryland-Virginia Milk Producers' Association—the Tobacco Growers' Association, Eastern Livestock Marketing Association, and the Hillsboro-Queen Anne Cooperative Corporation. The problems offered by these organizations vary from year to year, but the marketing specialists and other specialists of the Service are depended upon by them for substantial aid in their respective lines.

Market News—Market news reports on fruits, vegetables, poultry, butter, eggs, and livestock on the Baltimore market were issued and published daily in the Baltimore papers. In cooperation with the Federal Bureau of Agricultural Economics and the Union Stockyards, the livestock market is reported twice each week over Station WBAL in Baltimore.

POULTRY

THE POULTRYMEN of the State were very active in development of their industry during the year and substantial progress was made in many phases of this rapidly growing industry. This activity on the part of those engaged in the poultry industry was an incentive to extension workers to lend every assistance within the limits of the resources available.

Major lines that were stressed in poultry extension work during 1936 included an egg quality improvement program, industry organization activities, and a farm egg and poultry record project.

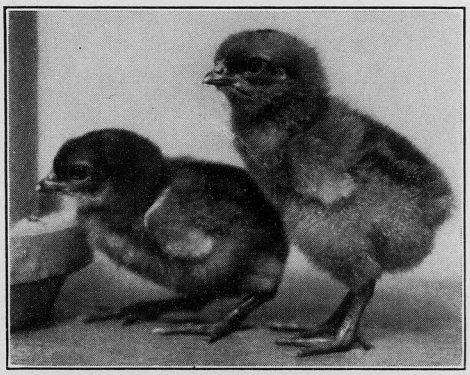
Minor activities included breed improvement and disease control, turkey production, 4-H club work, and broiler production surveys.

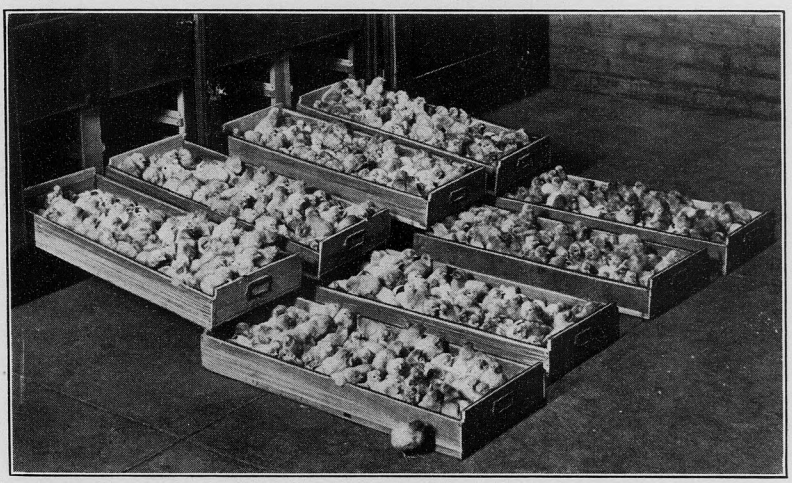
Egg Quality Program—A program to improve the market quality of eggs produced and sold by Maryland farmers and poultrymen was developed and inaugurated in several counties. Producers were aided in improving their flock management and egg handling practices, so as to produce high quality eggs and preserve that quality through to consumers by improved handling and marketing methods. Encouraging results in the way of increased net returns to producers through State-Federal Egg Grading Stations in Frederick, Baltimore and Washington attest the importance of such a program.

Poultry Industry Organization—Cooperation with poultry producers through the Maryland State Poultry Council and the eight County Poultry Associations on problems of the industry received special attention. The 1936 Poultry Products Show in Baltimore, legislation to curb poultry thieving, and a number of other projects undertaken by the Council were given active support. Hearty cooperation was given also to the Northeastern Poultry Producers' Council in its program relating to regional and national problems of the poultry industry, especially the broiler industry in Maryland and neighboring states.

Farm Egg Record Project—Records of cooperators in this project reveal a gradual increase in average production per bird from 139 eggs in 1929-1930 to 151 eggs in 1935-1936. More intelligent culling and an increase in the average size of flocks kept are indications of the value of this project to Maryland farmers and poultrymen in pointing out more efficient management methods. A slight decrease in mortality of layers further indicates the effectiveness of this project in increasing the efficiency of management practices of Maryland poultrymen.

Breed Improvement and Disease Control—Approximately twice as many birds were tested for Pullorum diseases in 1936 as in 1935. Definite progress in checking this disease is indicated by a weighted average of 11.8% infected birds in 1935 as compared with 7.7% infected birds in 1936, of all birds tested. Improvement in the quality of Maryland poultry through a supervised plan in cooperation with the U. S. Department of Agriculture was inaugurated in 1936. There is great need for development of Pullorum-free flocks of superior breeding in this State, in view of





Hatching of healthy chicks by use of eggs from Pullorum-tested flocks was emphasized in the poultry extension program.

the large volume of chicks, eggs and stock purchased from distant sources, because of higher livability and production.

Turkey Production—High feed costs and low market prices, due to increased production, increased the need for greater efficiency in producing and marketing Maryland turkeys. Efforts in this direction carried on in previous years were continued and intensified with a view to helping turkey growers under the difficult conditions surrounding their industry. Meetings and demonstrations dealing with the various phases of turkey production and marketing were held in the principal turkey producing areas of the State.

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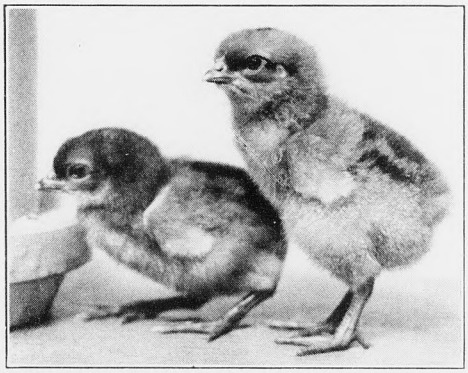

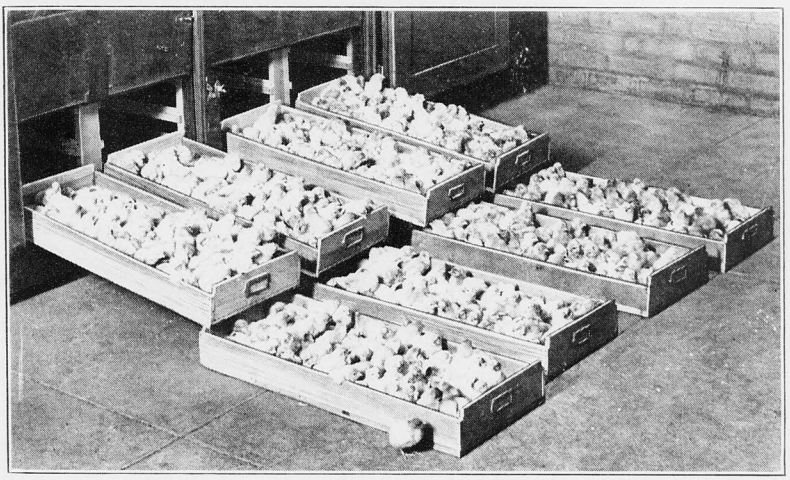

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Broiler Production Surveys—Development of rather large-scale production of broilers in some sections of Maryland, as well as in other states, within the last few years gave rise to some difficult problems. There was an evident need for much information concerning the economic problems of this new branch of the poultry industry, which has developed to a point where broilers to the value of more than a million dollars are produced in the State annually. Assistance was given in the surveys of the broiler industry made by the Agricultural Adjustment Administration and the Department of Agricultural Economics of the University of Maryland.

ENTOMOLOGY

ESTABLISHED SERVICES to aid in controlling some of the most serious insect pests were continued and a number of special problems required attention during the year.

Codling Moth—The early emergence of this insect was light, but hot, dry weather prolonged emergence and increased egg laying to a point where a very serious infestation in the second and third broods was built up. Spray service plans, which were formulated in cooperation with the departments of plant pathology and horticulture, functioned as in the past. The spraying calendar, supplemented by the timely issuance of spray notices, or cards, served to direct the spraying in the proper way at the proper time, except for the building up in the second and third generations, which had to run its course owing to the spray residue tolerance. Orchardists who had washing machines were able to continue late spraying and thereby protect their fruit, but those who did not have washing outfits suffered severely from the late brood.

The spray residue situation was controlled through the spray service, and checked by pre-harvest sampling of the orchards, in cooperation with the Department of Markets. The State Department of Health made the analyses and while a few samples ran over the tolerance in the early part of the season, rains and weathering reduced the tolerance so that there was no necessity for condemnation in orchards not equipped with washing machinery.

Canning Crop Insects—Demonstrations were arranged for fumigation of pea fields with vaporized nicotine, but no aphis infestation materialized on the Eastern Shore, due to excessively dry weather. Demonstrations were continued in Garrett county

on the use of nicotine and soap as a spray, in comparison with applications of rotenone-bearing sprays, plus a spreader. Five years experience with soap and nicotine sprays shows that they resulted in a large decrease in the aphid infestation and an increase in the yield of shelled peas ranging from 13.2% to 104.9% over the unsprayed plot. Observations indicate that rotenone remains effective against the aphids over a much longer period than nicotine and soap.

Potato Insects—In cooperation with the Department of Vegetable Pathology, demonstrations were continued on the control of flea beetles and diseases of potatoes at points on the southern Eastern Shore and in Western Maryland. Both of these demonstrations were made the basis for field meetings at which the results were explained to a good attendance of growers.

Japanese Beetle—Educational work in regard to the Japanese beetle centered about lectures to garden clubs, and preparation and distribution of an illustrated circular and press releases through the county agents. This insect constitutes a major problem, but it is difficult to get people who have not seen the depredations of the Japanese beetle on their property to understand the necessity for work in advance of major injury. All efforts were directed toward stimulating an intelligent interest in the pest.

Mosquito Control—A large-scale demonstration was conducted in Worcester county, designed to show the feasibility and practicability of controlling pest mosquitoes by ditching. The work was done by members of two CCC camps and was under the direction of the State Entomologist. Ninety percent of the mosquitoes in that county have been determined to be salt marsh mosquitoes, which can be controlled by construction of ditches in the tidal marshes sufficiently large and close enough together so that at low tide the sheet water of the marshes will be drained into the ditches and carried off.

While it is too early to state what the results will be from this demonstration, it is safe to assume that the same progress may be made in Worcester county as has been made elsewhere in other states against the same species of mosquitoes, and on similar breeding areas. It is too early, also, to expect that the spread of influence from this large scale demonstration would show results outside of Worcester county, but it seems that it is a logical method to approach the problem.

Miscellaneous Insects—There was greatly increased interest in insects attacking dwellings and office buildings and calls for assistance and advice. Probably the advertisements of companies in the business of exterminating termites has led to closer inspection by householders and others of the premises they occupy.

The periodical cicada, of Brood X, appeared over a large portion of the Western Shore of Maryland during the last spring and early summer. A tremendous amount of interest was created by this insect and for several weeks the specialists were besieged by telephone calls and letters requesting information on the subject. The insect did considerable damage to commercial orchards in the western part of the State and was the cause of several demonstrations.

Interest continues to increase in the insect pests of flowers and gardens and specialists are in great demand for lectures before garden club groups. Advantage was taken of the National Flower Show to exhibit Japanese beetle injury to lawns and the control of such injury by use of arsenate of lead. The exhibit was not devoted to Japanese beetle exclusively, but covered other pests of garden crops and flowers.

Work was conducted on insects attacking man and animals, particularly lice on horses, mosquitoes as pests of both men and animals, fleas, and other annoying insects in the home. Insects sent in for identification and with requests for information as to their control constituted a long list and included a wide variety.

APICULTURE

EXTENSION WORK with beekeepers gave particular attention to colony and apiary management problems, requeening, work with beginners, honey marketing, and the keeping of records and accounts by beekeepers. A particular effort was made to increase the scope of the work with regard to the number of individuals receiving help. Many new personal contacts were made in the apiaries, in addition to those made at meetings and through correspondence.

Colony and Apiary Management—Good wintering, proper spring increase and control of swarming were three fundamentals in honey production forming the basis for the educational program in management. By means of demonstrations in the apiaries, meetings, schools for beginners, publications, and radio talks an

effort was made to give practical information on these basic points to as large a percentage of the beekeepers as possible. The campaign to eliminate the antiquated and unprofitable box hive, which has been in progress for a number of years, is showing an effect. A large number of colonies are being equipped each year with movable frames.

Improvement of Stock—One of the most serious drawbacks to Maryland bee culture is poor stock. Colonies headed by old queens do not build up properly in the spring and the queens are often superseded at a crucial time, resulting in cessation of egg-laying and adult emergence at a time when it can ill be afforded. Poor stock is also more susceptible to invasions of wax moth and European foulbrood infection. Demonstrations of requeening led to one of the outstanding trends in Maryland beekeeping during the year. This was evident from the fact that the only commercial queen breeder in the State could not begin to fill his orders, and several beekeepers acting as agents for southern queen breeders did their best year's business.

Records and Accounts—Comparatively few beekeepers keep accurate records. Mimeographed schedules were made available again this year and were used by an increased number. It is felt that it will be only a matter of time and constant stimulation to induce the majority of beekeepers to use these simple records.

Disease Control—Talks on diagnosis and control of diseases were given at meetings of beekeepers and all requests for inspection were complied with. A total of 48 apiaries and 528 colonies was inspected.

Honey Marketing—An effort was made to secure as much advertising for honey in Maryland as was possible with limited facilities. Generous use was made of the radio, and exhibits were made at three county fairs and the State Fair. A series of demonstrations of honey and its uses, lasting one week, was made in a Baltimore department store for the purpose of bringing honey to the attention of city housewives.

Orchard Pollination—Increased interest is being shown by fruit growers in obtaining bee colonies for use in orchard pollination. Assistance was given in determining the number of colonies necessary and their placing.

The Pollen Basket—Through a mimeographed publication called "The Pollen Basket," information on bee culture was dis-

seminated effectively. It has a three-fold purpose: First, as a means through which material of an educational nature can be broadcast by the extension worker; second, as a medium for fostering among beekeepers a feeling of unity, common purpose and fraternity; and, third, as a method for sending out notices of meetings and other events of interest to beekeepers.

PLANT PATHOLOGY

CONTROL OF PLANT DISEASES offers problems to growers of practically all of the wide variety of crops grown in Maryland. While it has been necessary with the limited force available to concentrate somewhat more intensively upon diseases of some crops than upon others, it was the general aim to render service to all classes of producers, at least in their major problems.

White Potato Diseases—Because of the importance of this crop from the standpoint of its value, and also of the fact that white potatoes cannot be grown profitably without control of potato diseases, much time was devoted to this crop.

This work centered upon production of seed stocks suitable for use in planting seed and commercial crops within the State and neighboring states. Growers were assisted in producing and maintaining healthy seed stocks by tuber index and tuber unit planting, use of proper seed of best varieties, and roguing and spraying their fields. Seed stock was inspected for most of the growers and this year 64,392.5 bushels of potatoes produced by 85 growers on 306.25 acres were eligible for certification.

Spraying demonstrations continued to be an important part of the disease control work. New materials were compared with the standard Bordeaux mixture, but none of them have as yet proved superior to it.

Sweet Potato Diseases—Inspection and certification were continued as among the most effective means of controlling diseases of sweet potatoes. In 1936, 7,975 bushels of sweet potatoes eligible for certification were grown on 32 acres by eight growers. Other phases of the work included efforts to induce growers to use disease-free seed, practice seed treatment, seed bed sanitation, plant treatment and crop rotation. They were urged also to handle the crop carefully at digging time, during transit to and from the storage house, and to give due attention to proper storage house construction and management.

Diseases of Orchard Fruits—In order to assist fruit growers obtain larger yields of high quality fruit, a spray service has been maintained for a number of years. Specialists of the Service make a careful study of disease development in orchards throughout the State and issue advice regarding the best time to spray and best materials to use. This advice is sent to fruit growers on cards by the county agents and practically all commercial orchardists follow the recommendations thus given to them.

Demonstrations in control of fruit diseases by spraying with various materials were conducted, particularly in the way of comparisons of the newer spray materials.

Tobacco Diseases—The price received by growers of tobacco depends largely upon the quality of product. Presence of wildfire, downy mildew, mosaic and other diseases makes it necessary to practice good seed bed management in order to realize a profit.

Two types of demonstrations in seed bed management attracted considerable attention among tobacco growers on account of the healthy plants they produced. One was a community affair, where several neighbors had all of their tobacco beds on the same farm, close enough together to be sprayed with a power sprayer. The other type of demonstration consisted of purchasing a hand spray pump by several neighbors, mounting it on a truck, and spraying their seed beds.

Diseases of Other Crops—Measures designed to control diseases of cereal crops have become more or less general practices with farmers, but considerable attention is given to this phase of the work each year, and a large number of demonstrations are conducted. These include demonstrations of the superiority of certified wheat and barley seed, approved methods of seed treatment for the several crops and diseases, crop rotation, and the value of carefully-selected, well-adapted seed.

Disease control practices demonstrated on other crops include: Use of western-grown bean seed for control of bean diseases; use of yellows-resistant cabbage; use of varieties of watermelons resistant to wilt; spraying cucumbers and cantaloupes; weed control and roguing for control of cucumber mosaic; and use of wilt-resistant varieties of tomatoes for control of tomato wilt.

FORESTRY

THE PROGRAMS of a number of agencies which have been launched within the State during the last few years have had an important influence upon the interest in various phases of forestry, the attention devoted to activities in that line, and the character of projects featured in work of the Extension Service. In general, it can be said that the year was one of the most active in forestry work in the State. The definite place that forestation and maintenance of forests occupies in soil conservation, erosion prevention, and land utilization has emphasized its importance and aroused a great many woodland and farm owners to active efforts. The various developments are providing excellent demonstrations for use in educational work on the several phases of the subject.

Owing to a change in extension specialists in forestry on September 1, the program planned for the year was somewhat interrupted. The major emphasis was placed upon service to owners of farm woodlots.

Farm Woodlots—A definite service was provided to owners of approximately 5,250 acres in farm woodlots, with a view to helping them make the most of this portion of their farms. A preliminary survey was made to determine what the farmer had in his woodlot and his needs. He was then given a plan designed to meet his own needs and to help him dispose of any excess timber. Trees considered desirable for removal were marked, whether for use, for market, because they were diseased, or for other reasons. Assistance was given in obtaining bids from reputable buyers for excess timber.

Woodlots on which this service was utilized served as demonstrations of the possibilities in practical management.

Reforestation—Records indicate that approximately 23,000 acres were planted in trees by land owners as a result of efforts by the extension forester. This planting was done in accordance with recommendations provided as to varieties, methods of planting, and other factors having a bearing upon the success of the undertaking.

Market Information—For a number of years it has been the practice to assemble information on the current values of forest products and provide a summary of this information quarterly to

those interested. Demand for this service has increased, particularly from woodland owners, and it was continued and expanded somewhat during the year.

Reduction of Fire Losses—Educational activities designed to impress upon woodland owners the danger of serious loss by forest fires and the importance of care to reduce such hazard are a part of the forestry program each year. Owners having forested areas covering a fairly large acreage are encouraged to practice blocking their forested land in such way as to give greater possibility of confining fire damage to comparatively small area.

The work being done by CCC boys in the State is an important development in the interest of improved forests and woodlands. It is providing large-scale demonstrations of methods of forestry management advocated by specialists in that line and the results which may be obtained by following such methods.

CANNING CROPS

IN SPITE of lower prices per ton for raw stock and reduction in total acreage, production of all major canning vegetables, with the exception of peas, increased over 1935 and the farm value was equalized.

Considerable change was made in the original program, due to the necessity for devoting extensive efforts to pea grading.

Variety Demonstrations—The most promising varieties of sweet corn, peas and tomatoes were included in field demonstrations conducted in different parts of the State to determine those best suited for local conditions. The hybrid corns, in general, outyielded the open-pollinated strains and showed greater uniformity of maturity. They are rapidly replacing the open-pollinated corns. Wisconsin Early Sweet and Mardelah, two new early sweet peas, gave excellent yields and quality compared with the established Alaska. It has been the aim for a number of years to find suitable varieties of early sweet peas to partially replace the lower-quality Alaska.

Promising new varieties and strains of tomatoes were compared with several standard varieties in a large number of demonstrations throughout the State. While Marglobe and the Greater Baltimore types continue to be standard canning varieties, several of the newer selections gave favorable performances.

Seed Stock Demonstrations—Seed stocks of peas sent by the various seedsmen to canners of the State have been compared with stocks of known high quality in field demonstrations for a number of years. When these demonstrations were begun, this area was known as the dumping ground for poor quality seed peas. There has been a steady improvement in the quality of seed in recent years and it appears reasonable to assume that these demonstrations have been very beneficial to growers and canners.

Similar demonstrations were conducted with seed stocks of sweet corn this year. The samples included showed such variation that it is planned to enlarge the work and hold a field meeting of canners and seedsmen to point out the differences.

Tomato Seed Improvement—Work was continued with both Marglobe and Tri-State Baltimore varieties, in cooperation with the Tri-State Packers' Association. Stock seed is produced from hill-selected and progeny-tested plants. A very desirable type of Marglobe tomato appeared in one of the progeny rows this year.

Seed Treatment—Pea seed treatment demonstrations with red copper oxide and graphite were conducted on 12 farms. Increased stands were secured where the peas were planted early, when the ground was cool and wet, but the treatment reduced stands in later plantings.

About 1,000 pounds of tomato seed were treated after the tomato season, when cold weather had killed many of the airborne diseases, in order to avoid reinfection.

Ten-Ton Tomato Club—This contest was conducted for the ninth consecutive year, with 209 growers enrolled. Twenty-nine growers qualified for membership by producing ten tons, or more, to the acre. This is the largest number to qualify in one year since the contest started. By producing 17.6 tons to the acre, Mr. Clarence D. Cullen, of Cecil county, registered the highest yield ever made in the contest.

The contest was divided into two classes this year, dependent upon the acreage grown. The first group included those with from two to five acres and the second group those with more than five acres. All who produced the required ten tons to the acre received certificates of membership in the club and those producing the highest and second highest yields in each class were awarded gold watches that were contributed by the allied industries. In the

small acreage class, those receiving watches were Clarence D. Cullen with 17.607 tons to the acre and J. S. and E. T. Cullen with 16.486 tons to the acre, all of Cecil county. In the large acreage class, the winners were John F. Kolk of Baltimore county with 16.374 tons, and Riley J. Willey of Dorchester county with 14.63 tons to the acre.

Pea Grading—Do to insistence of individual canners and the Tri-State Packers' Association, specialists of the Extension Service cooperated with Experiment Station workers and commercial organizations in an effort to develop a mechanical method for determining maturity of raw peas. Such a method would be of of great value as a basis for purchase of raw peas by grades. Determinations of density, sieve sizes, amount of juice, and refractive index of juice were made on a large number of samples at four locations in the State. Both sieve sizes and density were found to have a bearing on quality and it was possible to develop a statistical formula based on these factors which gives a fair degree of accuracy in predicting the maturity grade of peas.

Miscellaneous Activities—The annual short course for canners, fieldmen and growers was held at the University. Numerous minor projects were carried out on all of the major canning crops. In all, 262 demonstrations were conducted and many emergency calls were answered, particularly along the line of plant disease control.

TOBACCO

WITH THE RETURN of a full-time tobacco specialist after an extended leave of absence, a more adequate program was outlined for improvement of this important crop, which constitutes the major source of income for a number of counties in Maryland. Demands upon his time in connection with conservation programs prevented carrying out in full the program proposed.

Variety and Seed Improvement—More than 50% of the tobacco growers use strains of hybrids of tobacco of unknown origin, which produce low yields, and inferior color and quality. Because of this condition, 43 growers were induced to grow tobacco from seed of the leading varieties. Results of these demonstrations are not yet available, as the 1936 crop is not sold until the summer of 1937, but reports from growers and county agents indicate that increased yields of good color and quality were obtained. It is

hoped that introduction of leading varieties may continue until at least two-thirds of the growers are using economical varieties.

Closely associated with this work is the need for use of better quality seed. More than 75% of the growers sow seed that has not been cleaned or tested for germination. In cooperation with the Seed Laboratory of the University of Maryland, 534 lots of seed were cleaned and germination tests were made for growers.

Demonstrations of the use of various sprays as a means of controlling disease in tobacco beds was a part of the program. This picture shows a demonstration in St. Mary's County.

Tobacco Disease Control—For more than six years, the wildfire and downy mildew diseases of tobacco plant beds have caused serious losses. Results of demonstrations in former years were encouraging and the work was extended into additional counties in 1936. Efforts to control these devastating diseases should be continued with a view to developing control measures that are most economical and best adapted to use by growers.

Increased Yield of Quality Tobacco—A large percentage of growers produce low yields and associated with the low yields are poor quality and color. An approach to this problem through study of the soils was made during the year. With a history of past soil treatment and the analysis of the soil, the specialist found it possible to make detailed recommendations for production of better crops. This work was so popular that approximately 1,400 samples of soil were taken, analyzed, and recommendations made

for better tobacco culture. The work is far-reaching, as it frequently leads to better crop rotations, soil improvement programs, and farm management efforts.

Closely associated with this work were demonstrations of side-dressing with potash, carried on in five counties in cooperation with the American Potash Institute, Inc. On all plots, the tobacco made larger growth, ripened earlier, had a thinner leaf and a brighter color than tobacco grown on check plots.

House-Burn—Each of the five tobacco-growing counties cooperated in demonstrations for control of house-burn with a new type of fuel, which is a compressed form of charcoal. Information on the factors causing this disease was disseminated in connection with these demonstrations.

Stripping Rooms—In efforts to assist tobacco growers with the task of getting their tobacco stripped earlier, better, and with greater comfort and less hazard to health, the construction and use of stripping rooms have been advocated for years. Blue prints of plans for satisfactory stripping rooms were made available to growers free of charge at the offices of county agents.

Marketing Problems—It was not possible during the year to to devote the attention to various problems associated with marketing the tobacco crop that their importance merits, as they are perhaps the most important confronting growers at this time. A number of conferences were held with tobacco buyers, but without very specific and helpful results. Plans were formulated to hold group discussions of leading growers in each county in an effort to determine marketing problems that are common for the area. Assistance was given to the Maryland Tobacco Growers' Association, which is rendering valuable service to its members in handling and disposing of their crops.

AGRICULTURAL ENGINEERING

FEW ARE THE ACTIVITIES on the farm or in the home which are not in some way related to mechanics or engineering. Such relationships are found in rural electrification, farm structures, farm power and field machinery, drainage and irrigation, and in such domestic utilities as water, heat and waste disposal systems.

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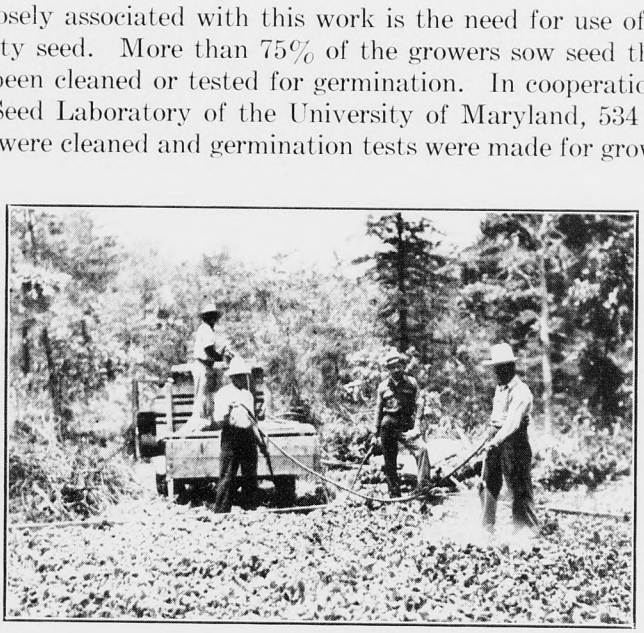

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In this broad field, the Extension Service is bringing to Maryland farmers information and training in new developments and in improved practices to effect economies, reduce production costs, and improve farm standards of living.

Farm Buildings—According to the last census, buildings on Maryland farms are valued at $157,700,000. With an annual replacement of only 2% and new construction costs estimated at twice the census value of existing structures, the annual expenditure for new buildings is more than $6,000,000.

Extension engineers have drawn plans for most types of farm buildings and equipment and blue prints of these are available without cost to farmers who are planning to build. Since this program was started, more than 4,000 such blue prints have been distributed.

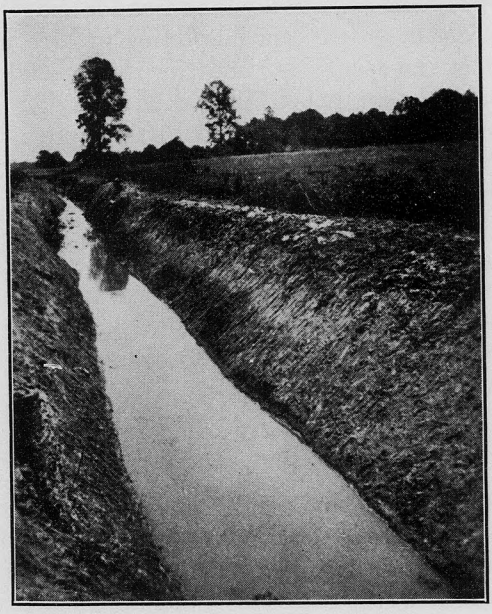
This blue print service has brought about a large degree of standardization of dairy structures, with resultant lower costs of construction and elimination in large measure of controversies between dairymen and health officials.

Rural Electrification—Work in this line has assumed major importance in reducing production costs and improving standards of living on the farms and in the farm homes of the State. Educational efforts are reaching approximately 4,000 rural families each year. Bulletins and circulars on care and repair of electric equipment, proper lighting, adequate wiring, use of equipment, both in the home and on the farm, were prepared and schools covering these subjects were held.

Recent rate reductions should effect in 1937 a saving of $45,000 on the 8,700 farms having electric service. More liberal line extension policies in most areas and the Rural Electrification Administration program should help increase to 20,000 the number of farms that will enjoy electricity in the near future.

Drainage—Inadequate drainage is a major obstacle to profitable farming in many sections of the Eastern Shore. In 1936 the Extension Agricultural Engineer organized three CCC Drainage Camps and has continued to supervise the work program of these camps They are located at Goldsboro, Westover and Vienna, and are equipped for both hand and machine excavation. The work consists of maintenance and improvement operations on organized tax ditches.

The two pictures show the "before and after" story of a drainage ditch in Queen Anne's County. One shows the condition of a branch of Beaver Dam ditch before members of a CCC drainage camp began work to improve the drainage of farm land in that vicinity.



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Excellent results have been achieved. As of January 1, 1937, clearing of ditch channels and banks amounted to 3,306,000 square yards, and excavation of 327,000 cubic yards. At the conservative figure of 25 cents per cubic yard, this excavation alone would have cost $81,750 as a contract operation.

Engineering assistance has been provided, as in former years, in the designing, surveying and construction of tile drainage systems. Many hundreds of acres of farm land have been drained as a result of this service.

Other Services—Assistance was given to many farmers with problems pertaining to machinery repair, irrigation and water supply and sewer disposal installations.

ECONOMICS AND FARM MANAGEMENT

WHILE GREATER ATTENTION and much more time and effort have been devoted to economic and farm management phases of agriculture during the year than in any former period, the work in these lines has been so inter-woven with broad programs being carried out in the State and Nation that it is impossible to make definite distinction between them. Naturally, economic information serves principally as a foundation for activities, and the adjustment, conservation, and marketing programs have multiplied many times the recognized need for information of that type. With approximately 14,000 farmers in Maryland filing work sheets for their farms in connection with the Agricultural Conservation program, it is evident that a large percentage of the farmers are giving greater attention to the economic and management phases of their business than ever before. Programs of that nature have made farmers conscious of the need for adequate records of their farming operations and given impetus to the use of farm business records. A promising development in that line is the interest shown by 4-H club members and young farmers in record keeping projects.

Most of the efforts of the specialist in farm economics of the Extension Service was devoted to assembling and disseminating basic information underlying conservation and other programs.

One of the extensive activities was in connection with the county and State program planning project. A comprehensive summary of economic factors associated with each county was supplied to the county agent and leaders in the respective counties, for use in

considering the trends and planning a program for development of agriculture and rural life along the soundest lines during the next several years. This far-reaching project served to focus attention upon the advisability of careful planning, based upon sound basic information, and undoubtedly was of exceptional value to a very large number of farm families in their individual affairs, as well as to the future development of agriculture and rural life in the counties and State as a whole.

Farm Management—There is no point at which economics can be said to stop and farm management begin. However, the Extension Service has made substantial expansion during the year along the line of providing farmers with definite assistance in planning the management of their farms. All phases of the work have had a tendency in that direction; in other words, there was a definite shift from dealing with individual farm problems toward dealing with each farm enterprise in relation to the welfare and success of the entire farm business.

It was the aim at the beginning of the year to give definite supervision and assistance to 100 farmers in keeping complete income and expense records of their farm operations. So great was the demand for this work that 260 farmers were started and indications are that approximately 220 will complete the year's record. This does not include the number of records kept by farmers in the AAA record books, which was many times the number mentioned.

During the year, analyses were made for more than 50 farmers who kept records for the year 1935, and also the records of a few farmers who had kept records for several years.

RURAL SOCIOLOGY

THIS is the first year that a project in this line was included in the Maryland Extension Service program. Consequently, the activities were of somewhat preliminary character and formative in procedure.

Rural Organization Problems—The chief activity under this phase of the project consisted of a series of conferences with local extension workers on the various ways in which they were seeking the reach the people of their counties and the relative effectiveness of their methods. During the coming year it is planned to make a

detailed study of the rural organizations situation as related to the Extension Service in at least two and possible three counties.

Older Rural Youth—Work in this field consisted principally of a survey in which more than 500 unmarried white folks, 16 to 25 years of age, were interviewed by Extension workers, using a fairly comprehensive schedule. Questions were asked concerning schooling and additional schooling definitely planned or desired; present employment and earnings, if any; the home situation, including tenure, modern conveniences, use of family automobile; income from parents, etc.; memberships in young people's organizations of all types and leadership positions held in these organizations; types and amount of recreational activity; special interests and problems recognized by the young folks. A manuscript containing the statistical summary and descriptive material is nearing completion. The results will be of considerable value in formulating plans appropriate to this group.

Public Discussions—Two methods were used in developing the public discussion phase of this project during the year. First, the Extension Sociologist gave talks before organized groups, in which the importance of developing the public discussion as a valuable educational device was stressed, and topics were suggested that might be handled by groups having little or no previous experience in discussion technique. Second, he gave two demonstrations and participated in others featuring the discussion method, with and without a panel.

Other Activities—Phases of the program to which limited attention was given included rural recreation, library facilities for rural people, and cooperation and assistance given to boards of public welfare.

CROP ESTIMATING SERVICE

THROUGH A COOPERATIVE arrangement with the Division of Crop Estimates of the U. S. Department of Agriculture, trained statisticians are stationed at the University of Maryland for the purpose of maintaining a corps of regular crop reporters and assembling the data necessary to estimate conditions with respect to the principal crops of the State. This service has proved more essential than ever before since accurate information on crop yields, acreage of various crops, etc., has been required in connection with adjustment and conservation programs.

There is great need for more intensive work in this line, especially for estimates by counties as a basis for planning county programs. It is a pleasure, however, to express the appreciation of the Service for the able and cordial cooperation given by Mr. J. A. Ewing, Statistician in Charge, and his associates.

GENERAL ADULT EDUCATION

THERE IS INCREASING DEMAND for Adult Educational work of general extension character. During the past year, through the cooperation of the President of the University of Maryland, a special committee was set up to aid in promoting Adult Educational Work in fields other than agriculture and home economics. After a survey in certain sections, it was found that Cambridge offered an opportunity for a definite class of work in Political Science and Public Speaking. Two regular courses were inaugurated there last fall and conducted throughout the term. Through the cooperation of Professor Charles S. Richardson, Mr. Ray Ehrensberger, and Professor R. G. Steinmeyer, two classes were conducted with an average attendance of approximately 25.

At the request of the Personnel representative of the Consolidated Gas and Electric Company of Baltimore, a definite group of employees was given a course in Business English at Annapolis, covering a period of 16 weeks.

The work given at these two places proved very satisfactory. It was conducted on a non-credit basis, and it is now hoped to make a survey of the State to ascertain what is being done along this line by other institutions, and the demand for it in the State. Before further development of the work can take place, a definite administrative assistant should be secured to take charge of this phase of Adult Educational Work and definite arrangements should be made with teachers who may be able to give this intensive class work in the field.

An increasing number of requests is being received by specialists for information and general assistance in cultural subjects in addition to the regular activities of the Service. We are indebted to the teachers in the various departments for their sympathetic cooperation and assistance in responding to these needs.

As in the past, splendid cooperation was received from those associated with other branches of the University. Due to the many new activities and problems, close association with the heads of

the several departments of the Institution has been maintained. Every encouragement and assistance was given by Dr. H. J. Patterson, Director of the Experiment Station and Dean of the College of Agriculture, and a number of specialists engaged in regular research and teaching work, including Professor J. E. Metzger, Dr. DeVoe Meade, Professors B. E. Carmichael, L. W. Ingham and others.

STATE HORTICULTURAL DEPARTMENT

WORK OF THIS DEPARTMENT continued as heretofore under the general direction of the Director of Extension. The work is carried on actively by the State Entomologist and State Plant Pathologist. Activities of the Department are reported in the biennial report of the University and include the control features of the department affecting both insects and diseases, as well as inspection activities. It has proved advantageous to have work in these lines closely tied in with Extension activities. In fact, the heads of these departments and associates carry on their respective specialties in the Extension field.

CONCLUSION

IT IS DIFFICULT in a report of this character to enumerate and do justice to the many lines of work undertaken by the Service. Only a brief summary can be given of the activities carried on by specialists and agents in the counties. There has been a natural growth in the work of the Service as a whole, and a fine response from the people we are trying to serve.

The Soil Conservation Program of the past year appealed to a much larger number of farmers than did the previous adjustment programs. It brought the Extension forces and personnel in contact with a much larger percentage of the farmers and homemakers of the State. We are gratified with the results being obtained.

The Service is indebted for the sympathetic cooperation of officials in charge of the Extension Service of the U. S. Department of Agriculture, as well as those in charge of the Soil Conservation Program. The confidence that exists between the Federal and State agencies makes cooperation easy and effective. We are indebted likewise to the leaders of the Grange and Farm Bureau in this State for their constant encouragement and cooperation.

President Byrd, who was appointed Acting President in July, 1935, was made President of the University of Maryland on February 22, 1936. He has always given sympathetic cooperation and aided in development of Extension activities. I am, therefore, pleased to make grateful acknowledgment of the support of President Byrd in development of Extension Service Work in the State.

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1936

PROJECT	Total	Federal Funds			Offset Funds	Funds Not Used As offset		
		Smith-Lever	Capper-Ketcham	Additional Cooperative		College and State	County	Other
Administration	$16,956.84	$12,235.44	.....	$97.54	$3,389.94	$933.62	.....	$300.30
Publications	13,337.65	8,565.55	.....	668.46	2,836.55	1,136.60	.....	130.49
County Agent Work	127,596.54	56,684.40	$10,162.06	3,950.54	30,780.39	1,293.93	$21,173.49	3,551.73
Home Demonstration Work	101,136.38	29,290.18	15,914.55	4,241.40	22,446.83	1,703.34	20,586.00	6,954.08
Nutrition	3,075.86	2,445.97	.....	.....	606.32	23.57	.....	.....
Clothing	3,528.62	2,859.13	.....	12.05	632.19	16.05	.....	9.20
Agronomy	6,977.59	4,940.47	.....	.....	1,349.22	687.90	.....	.....
Animal Industry	4,969.15	3,048.53	.....	.....	1,433.19	465.05	.....	22.38
Horticulture	10,671.81	8,652.42	.....	.....	1,723.25	295.13	.....	1.01
Dairying	9,174.16	3,858.28	.....	.....	881.84	4,295.04	.....	139.00
Agricultural Marketing	14,434.69	3,854.85	.....	.....	2,336.15	7,593.69	.....	650.00
Imp. of Poultry Husbandry	5,047.51	2,148.03	.....	.....	2,364.37	535.11	.....	.....
Entomological Extension	*17,550.57	2,291.94	.....	.....	50.00	15,064.81	.....	143.82
Pathology	6,470.64	3,518.59	.....	.....	88.63	2,863.42	.....	.....
Canning Crops	5,435.64	2,013.57	.....	.....	3,309.69	112.38	.....	.....
Farm Forestry	2,144.02	.....	.....	.....	1,725.30	307.77	.....	110.95
Poultry Marketing	3,568.75	2,166.14	.....	1,043.23	174.82	184.56	.....	.....
Rural Engineering	4,474.97	1,133.35	.....	2,961.72	222.08	114.28	.....	43.54
Crop Statistics	2,917.72	781.72	.....	2,025.06	.....	110.94	.....	.....
Economics and Farm Mgmt.	26.79	.....	.....	.....	26.79	.....	.....	.....
Apriculture	1,970.05	974.19	.....	.....	540.48	412.90	.....	42.48
General Educational Extension	1,907.27	.....	.....	.....	.....	1,847.94	.....	59.33
Rural Sociology	2,226.60	2,226.60	.....	.....	.....	.....	.....	.....
Total Expenditures	$365,599.82	$153,689.35	$26,076.61	$15,000.00	$76,918.03	$39,998.03	$41,759.49	$12,158.31

* Includes $10,618.71 used for Japanese Beetle control.

SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1936

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SUMMARY STATEMENT OF EXPENDITURES BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK, FISCAL YEAR ENDED JUNE 30, 1936

Project	Personal Services	Labor	Supplies and Materials	Communication Service	Travel Expenses	Transportation of Things	Printing, Binding, and Cuts for Publications	Furnishing of Heat, Light, Power, Water, and Elec. (Service)	Equipment	Miscellaneous	Total
Administration	$8,826.63	$848.63	$2,198.17	$2,111.50	$99.36	$1,294.19	.....	$771.80	$699.71	$106.85	$16,956.84
Publications	5,825.00	1,645.80	714.41	1,730.62	94.70	24.18	$3,069.35	.....	195.09	38.50	13,337.65
County Agent Work	98,991.59	23.15	2,537.19	21.22	25,688.66	2.93	.....	12.50	184.55	134.75	127,596.54
Home Demonstration Work	72,118.85	146.55	4,941.80	46.15	22,481.17	17.59	.....	12.50	118.21	1,253.56	101,136.38
Nutrition	2,708.16	.....	.....	3.25	353.45	1.00	.....	.....	10.00	.....	3,075.86
Clothing	2,846.00	.....	21.64	10.70	591.64	1.25	.....	.....	57.39	.....	3,528.62
Agronomy	5,208.92	349.37	34.15	1.40	1,073.42	4.08	.....	.....	6.25	300.00	6,977.59
Animal Industry	3,600.00	4.70	67.15	3.11	1,280.70	.15	.....	.....	.....	13.34	4,969.15
Horticulture	8,608.66	29.67	325.01	.35	1,668.18	39.94	.....	.....	.....	.....	10,671.81
Dairying	7,943.69	127.95	34.83	3.90	855.92	.12	.....	.....	7.75	200.00	9,174.16
Agricultural Marketing	11,474.00	.....	203.52	13.05	2,564.55	4.04	.....	.....	169.53	6.00	14,434.69
Imp. of Poultry Husbry.	3,780.00	.....	65.29	8.66	904.32	2.46	.....	.42	71.11	215.25	5,047.51
Entomological Extension	9,228.00	4,587.53	177.74	31.18	2,994.28	78.68	.....	.....	170.84	282.32	*17,550.57
Pathology	4,430.83	2.95	160.19	6.40	1,840.10	9.81	.....	.....	8.35	12.01	6,470.64
Canning Crops	4,221.10	112.38	10.64	1.70	1,089,82	.....	.....	.....	.....	.....	5,435.64
Farm Forestry	1,155.00	.....	24.71	.....	957.50	.81	.....	.....	6.00	.....	2,144.02
Poultry Marketing	2,383.34	.....	7.10	.....	1,135.12	6.64	.....	.....	36.55	.....	3,568.75
Rural Engineering	2,553.71	.....	126.66	4.78	1,748.26	4.39	.....	.....	.....	37.17	4,474.97
Crop Statistics	1,950.00	.....	221.45	8.95	725.73	.....	.....	.....	11.59	.....	2,917.72
Economics and Farm Management	.....	.....	.....	.....	26.79	.....	.....	.....	.....	.....	26.79
Apiculture	1,076.25	.....	.....	7.83	885.97	.....	.....	.....	.....	.....	1,970.05
General Educational Extension	531.00	.....	98.51	.....	455.60	.67	.....	.....	.....	821.49	1,907.27
Rural Sociology	1,545.45	.....	.....	7.41	673.74	.....	.....	.....	.....	.....	2,226.60
Total Expenditures	$261,006.18	$7,878.68	$11,970.16	$4,022.16	$70,188.98	$1,492.93	$3,069.35	$797.22	$1,752.92	$3,421.24	$365,599.82

* Includes $10,618.71 used for Japanese Beetle control.

(Continued from Second Page Cover)

COUNTY AGENTS—1936

County	Name	Headquarters
Allegany	R. F. McHENRY	Cumberland
Anne Arundel	STANLEY E. DAY	Annapolis
Baltimore	H. B. DERRICK	Towson
Calvert	JOHN B. MORSELL	Prince Frederick
Caroline	G. W. CLENDANIEL	Denton
Carroll	L. C. BURNS	Westminster
Cecil	J. Z. MILLER	Elkton
Charles	P. D. BROWN	La Plata
Dorchester	WM. R. McKNIGHT	Cambridge
Frederick	H. R. SHOEMAKER	Frederick
Garrett	J. H. CARTER	Oakland
Harford	H. M. CARROLL	Bel Air
Howard	E. K. RAMSBURG	Ellicott City
Kent	J. D. McVEAN	Chestertown
Montgomery	O. W. ANDERSON	Rockville
Prince George's	P. E. CLARK	Upper Marlboro
Queen Anne's	KENNETH W. BAKER	Centerville
St. Mary's	J. J. JOHNSON	Leonardtown
Somerset	C. Z. KELLER	Princess Anne
Talbot	R. S. BROWN	Easton
Washington	M. D. MOORE	Hagerstown
Wicomico	J. P. BROWN	Salisbury
Worcester	R. T. GRANT	Snow Hill

ASSISTANT COUNTY AGENTS

County	Name	Headquarters
Allegany, Garrett and Washington	H. W. BEGGS	Cumberland
Baltimore	J. WHEELER ENSOR	Towson
Harford	W. G. MYERS	Bel Air
Kent	STANLEY SUTTON	Chestertown
Montgomery	A. A. ADY	Rockville
Carroll, Frederick and Howard	C. H. REMSBERG	Frederick
Caroline, Dorchester, Queen Anne's and Talbot	CHARLES FULLER	Easton

LOCAL AGENTS—(Negro Work)

Southern Maryland	J. F. ARMSTRONG	Seat Pleasant
Eastern Shore	L. H. MARTIN	Princess Anne

HOME DEMONSTRATION AGENTS—1936

County	Name	Headquarters
Allegany	MAUDE A. BEAN	Cumberland
Anne Arundel	MRS. GEORGIANA LINTHICUM	Annapolis
Baltimore	ANNA TRENTHAM	Towson
Calvert	ANGELA M. FEISER	Prince Frederick
Caroline	BESSIE M. SPAFFORD	Denton
Carroll	ADELINE M. HOFFMAN	Westminster
Cecil	W. GERTRUDE DENNING	Elkton
Charles	MARY GRAHAM	La Plata
Dorchester	HATTIE E. BROOKS	Cambridge
Frederick	FLORENCE E. WILLIAMS	Frederick
Garrett	MILDRED E. BARTON	Oakland
Harford	CATHERINE MAURICE	Bel Air
Howard	MARTHA E. MANAHAN	Ellicott City
Kent	HELEN N. SCHELLINGER	Chestertown
Montgomery	EDYTHE M. TURNER	Rockville
Prince George's	ETHEL M. REGAN	Hyattsville
Queen Anne's	ISABEL D. BEWICK	Centerville
St. Mary's	ETHEL JOY	Leonardtown
Somerset	HILDA TOPFER	Princess Anne
Talbot	MARGARET SMITH	Easton
Washington	ARDATH E. MARTIN	Hagerstown
Wicomico	GERTRUDE M. COOKINHAM	Salisbury
Worcester	LUCY J. WALTER	Snow Hill

ASSISTANT HOME DEMONSTRATION AGENTS

County	Name	Headquarters
Allegany	MARGARET A. LOAR	Cumberland
Baltimore and Harford	ELIZABETH R. JOHNSON	Towson
Carroll, Frederick and Montgomery	JUDITH AULT	Frederick

Local Home Demonstration Agents—(Negro Work)

Charles, St. Mary's, Prince George's and Montgomery	MRS. ARMINTA J. DIXON	Washington, D. C.
Somerset	MRS. JUSTINE N. CLARK	Princess Anne